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ORIGINAL ARTICLES.

A CASE OF SYMPATHETIC OPHTHALMIA TERMINATING IN RECOVERY.*

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A man, 37 years old, and a hard drinker, received on March 11, 1897, a destructive injury of the right eye from the accidental explosion of a cartridge, the wheels of a cart passing over the latter near him upon the street. He was at once taken to the Polyclinic Hospital, where I saw him. The ball, or perhaps a piece of the cartridge, penetrated the sclero-corneal junction and adjacent sclera upon the temporal side and also inflicted a ragged perforating wound in the upper lid. This was suggested to be the place of exit of the foreign body by Dr. Jackson, who saw the patient a few days later. The anterior portion of the globe contained blood, which obstructed all inspection of the deeper portions of the eye. The iris had prolapsed into the wound and the lens appeared to have been injured. The man was treated conservatively, partly for the purpose of ascertaining more clearly the exact condition of the eye after absorption of the hemorrhage, especially as to the presence of a foreign body, and partly to permit an extremely nervous condition bordering upon delirium tremens to subside. After a few days the blood in the anterior chamber was absorbed and the lens was now seen to be opaque. Light-perception and projection were perfect. It was decided therefore not to enucleate at present, particularly as the skiagraph, kindly made by Dr. Max J. Stern, failed to show the presence of a foreign body.

On March 17, six days after the accident, the lens was removed and iridectomy performed at the site of the original wound, where the iris was prolapsed and incarcerated. Healing progressed satisfactorily and the patient was discharged from the hospital, at his own request, with instructions to report regularly. A slight amount of vision was preserved and improvement was looked for after the blood, which could be seen in the vitreous, had undergone more complete absorption.

The patient neglected to return to the hospital, but immediately resumed his former habit of excessive drinking. On April 30 he presented himself at the clinic and was re-admitted to the hospital, with well-marked sympathetic ophthalmia of the left eye, as manifested by irido-cyclitis, with deposits upon the capsule of the lens and Descemet's membrane, and fine opacities in the vitreous. The disc was red and hazy and the retinal veins were decidedly tortuous. The tension was —1 and vision was reduced to 4-60. The man

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stated that sight had begun to fail without pain about a week previous to his return. The right eye had become somewhat painful, and what little sight had remained was entirely gone. Upon the following day the patient was also seen by Drs. Jackson and de Schweinitz, who concurred in advising immediate enucleation of the right eye, and this was accordingly done. The man was again on the verge of delirium tremens. Under the hospital régime, his general condition at once began to improve.

By May 18 the stump of the right eye had healed entirely. The inflammation in the left eye continued for many weeks and much apprehension was felt as to the outcome. Improvement finally set in slowly, interrupted by several exacerbations.

By the middle of July the eye was almost entirely free from redness, though still irritable. There were numerous deposits upon the capsule of the lens and the vitreous was still somewhat hazy. Vision equalled 4-100. One month later the only remains of the severe process through which the eye had passed was the presence of some spots of opacity upon the anterior capsule. With a correcting lens vision was just short of normal; the accommodation was somewhat below the standard usual at the patient's age.

The treatment after admission consisted in regular and persistent inunctions with mercury; atropin was instilled throughout the whole period of his stay in the hospital (three months), with an occasional abstraction of blood from the temple when the inflammatory symptoms became more intense.

This case presents several points of unusual interest; primarily, of course, the gratifying termination. It is, perhaps, too early to be certain that a definite and final cure has been obtained—at least two years should elapse before certainty of further immunity is established; but so far as the case goes, we are justified in entertaining a feeling of satisfaction. The habits of the man are, of course, an untoward feature. The cachexia that chronic alcoholism induces was probably an important factor in the etiology of the case. Infection of various kinds is now regarded in many quarters as a powerful predisposing cause in furthering the development of disease in the sound eye after injury of its fellow.

This case enforces the lesson, if this were needed, that conservative treatment looking to the saving of an eye that has been severely injured and which is a menace to the other should only be undertaken when the patient can be kept under constant observation. This was the intention in the case reported, and the man was duly charged to return regularly to the clinic. His failure to do so was his own fault, begotten of his vicious habits.

In conclusion I desire to express my thanks to Dr. F. T. Stewart, at the time interne in the Polyclinic Hospital, for his careful attention to the case, as well as for the notes of its daily progress, which he placed at my disposal.

TEMPER OF AMERICAN SWORDS.

There is an impression among many people, who read about the wonderful steel used in the manufacture of ancient swords, that the art of steel-making, so far as high quality is concerned, has been lost in modern times. Curious stories are related of the Damascus blades, of the way in which they were made, the process of tempering them, and all their superior qualities; but they have been more than equalled by swords made in this country within the last few years

N. P. Ames, of Cabotville, Mass., was a famous sword-maker during the war times, and he had great pride in the quality of the sword blades which he forged. To test their quality, in comparison with the best that tradition said were to be found in the world, he visited Spain with specimens of his handiwork; and when the authorities there produced from among the rarest treasures of their armories a sword that was particularly famous, and tested it in his presence, he successfully submitted his samples to tests which were much more severe. It may not be generally known, but it is nevertheless a fact that in no country are better swords made than have been manufactured in the United States for the last seventy years.—*Locomotive Engineering.*

AN EXPEDIENT TO DETERMINE POSITIVELY WHETHER A COMMUNICATION EXISTS BETWEEN FISTULOUS OPENINGS IN THE LUMBAR OR HYPOGASTRIC REGION AND THE BLADDER OR KIDNEY.*

ORVILLE HORWITZ,† B.S., M.D., PHILADELPHIA.

The surgeon, when called upon to treat a fistuluous opening presenting itself near the location of the kidney or bladder, is often in doubt whether or not it be connected with either of these organs; though in many cases the urinous odor accompanying the discharge from the sinus assists in forming a diagnosis.

Frequently, when the kidney is implicated, the fistulous tract is narrow, and only a small quantity of urine escapes, while at the same time a large amount of pus is discharged, so that it is often difficult to determine whether urine be present or not. Then, again, a small sinus from the kidney, or an opening leading to the bladder, may be temporarily blocked by a plug of excrementitious matter, so that it is impossible for the urine to secure an exit, and the diagnosis becomes proportionately obscure.

Recently, whilst making investigations with methylene-blue in the treatment of a number of cases of urethritis, I administered the drug in small doses, with the result of tinging the urine a deep-blue color. It occurred to me that when a fistula exists and it is doubtful whether or not it communicates with the kidney, the administration of methylene-blue at bedtime might impart a blue stain to the dressing on the following morning if the communication were complete.

I selected two patients from whose kidneys calculi had been removed some months prior to consulting me, the result of the operations being fistulous tracts in the lumbar regions of each, from which pus was being discharged in small quantities, although it was uncertain whether the discharge was mixed with urine or not. One grain of methylene-blue in capsule was administered to each patient. In the morning the urine passed *per urethram* was found in both cases to be of a dark-blue color. The dressings covering the fistulous opening in one of the patients was stained a distinctly blue tinge, so that it was certain that the fistula communicated directly with the kidney. In the second case there was no trace of discoloration of the dressing, so that it could be inferred that the fistulous tract did not communicate with the kidney.

I likewise administered the drug in a case of fistuluous opening following an operation for suprapubic cystotomy, which had been performed a year before the patient came under my observation. The tract was exceedingly narrow, scarcely permitting the passage of a fine probe; there was but a slight discharge. The day following the administration of the methylene-blue the dressings covering the opening were stained blue.

The simple expedient here suggested would seem to render the diagnosis of communication between fistula of the bladder or kidney well-nigh certain. It is submitted to the profession with the belief that it may prove a reliable method of arriving at a definite conclusion when doubt exists.

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Premature Burial.

During the past year this subject has been widely discussed on the continent of Europe and in the English press, and has engaged public attention to an unusual degree. This has resulted in the formation of societies whose avowed purpose is the prevention of premature burial. Cases of live sepulture are certainly rare in all civilized countries; nevertheless, no experience can be more horrible than that of being buried alive, and the occurrence of a single case in a generation is sufficient to stimulate the most scientific research into preventive methods.—*Medical News.*

OBSERVATIONS TENDING TO SHOW THAT TINCTURE OF DIGITALIS IS INERT IN TABLET-FORM.*

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The enormous number of compressed tablets of digitalis that are employed instead of the tincture or the fluid extract suggested the following experiments:

An adult male, suffering from a chronic disease unassociated with any affection of the heart or the circulation, was given five tablets, or the equivalent of ten minims of tincture of digitalis, every four hours for four doses on September 14, at which time his pulse was 100, the temperature 99.2°F., the respiration 28. This medication was continued for three days, when the tablets were increased in number to eight every four hours for four doses, or the equivalent of 64 minims, this dosage being continued for eight days. In the eleven days that the man was under the influence of digitalis he received in all 271 tablets, or the equivalent of 542 minims, or about 1,084 drops. The tablets employed were made by a well-trained pharmacist.

The following is a record of the results obtained:

	Pulse.	Pulse.
September 14,	4 A. M., 98	8 P. M., 94
" 15,	8 " 100	12 M., 88
" 15,	.....	6 P. M., 96
" 16,	8 A. M., 92	4 " 92
" 17,	4 P. M., 96	6 " 76
" 19,	8 " 87	
" 20,	8 A. M., 104	
" 26,	3.23 P. M., 96	

On September 28, after the drug had been suspended for two days, the pulse was beating regularly at the rate of 96 per minute and was normal in force. The intravascular pressure was moderate; and the radial wall was a trifle thicker than normal. The heart-sounds were normal; the temperature varied between 97° and 99° F. and the respirations between 20 and 28 per minute.

The results of this careful examination showed that there was no perceptible effect upon the cardio-vascular system from the taking of digitalis in tablet-form. This result was corroborated independently by another physician.

Simultaneously, and under similar conditions, another patient was given tincture of digitalis for ten days in ten-minim doses every four hours for four doses. The preparation was made in the pharmacy of the Philadelphia Hospital, and the well-known effect of digitalis was secured. The pulse, which normally varied between 76 and 80, descended under the influence of the drug, as will be seen by the following table:

	Pulse.	Pulse.
September 15,	8 A. M., 76	8 P. M.. 80
" 16,	8 " 84	8 " 79
" 17,	8 " 80	8 " 72
" 18.	8 " 60	8 " 52
" 19,	8 " 60	8 " 50
" 20,	8 " 50	8 " 90
" 21,	8 " 80	8 " 90
" 22,	8 " 60	4 " 50
" 23,	8 " 72	4 " 56
" 24,	8 " 50	12 noon 68
" 24,	.....	4 P. M., 68

On three occasions the evening record showed a pulse of 90 and the morning record one between 50 and 60. This was due to exertion and nervous excitement.

On the tenth and last day of the administration of the drug, the pulse was regular in force and rhythm, the tension was increased and the walls of the artery seemed slightly thickened. The heart was acting energetically, the apex-beat was more forcible than normal and the muscular element of the first sound of the heart showed increased strength two days after the tincture of digitalis had been withheld.

Although positive deductions are unwarrantable from the small number of observations recorded, still one may infer that the tablets employed in the first case

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do not represent the active ingredients of digitalis. It is to be remembered that these tablets were made by a skilled pharmacist and that the tincture was prepared by Mr. Joseph W. England, Chief Druggist to the Philadelphia Hospital.

If these few remarks excite a full discussion and thereby crystallize the opinions of the members of this society upon this important subject, the outcome of this communication will be of great value to the medical profession.

ACCURATE MEASUREMENTS FOR SCOLIOSIS.*

JAMES K. YOUNG, M.D., PHILADELPHIA.

In order to observe the course of the deformity, and the influence of treatment in cases of scoliosis, scientific methods of measurement must be employed. Many methods have been devised to measure and record the amount of deviation of the spinous processes in cases of scoliosis, and the amount or degree of the rotation of the bodies of the vertebræ. These methods include at the present time upwards of thirty-three different appliances, all of which are mentioned in the appended table.

These include all procedures, from the simplest free-hand drawing to the most elaborate and precise mathematical instruments. The taking of plaster casts of the body is tedious and cumbersome; the camera obscura, reproducing only a portion of the deformity, and photographic reproductions are variable for obvious reasons; so that mechanical devices offer the best methods of illustrating the deviations.

The methods that I have employed until recently are the lead measuring strip, free-hand drawing, the cyrtometer photography, McLarens' measurements, Weigel's trolley machine, and Beely's scoliosometer. Of these the cyrtometer is simple and reliable, and the Beely's Scoliosometer is satisfactory, but could be improved by attaching it to a table. The methods that I am using at the present

TABLE OF SCOLIOSOMETRY

I. Pliable reproduction	1. Plaster cast	
	2. Model bandage (Beely)	
II. Perspective drawing	1. Free-hand drawing	
	2. Photography	
III. Measuring	1. Simple measuring of the body	Measuring Band
	2. Outside measuring of the body	Callipers
		Spirit level
		Pliable metal band
		Scoliosometer (Heincke)
		Scoliosometer (Mickulitze)
		Simple Co-ordination Apparatus (Weil)
		Measuring apparatus (Bigg)
		Diastropomatia (Roberts)
		Scoliosometry (Zander, Bradford)
IV. Profile drawing	1. General surface measuring	Cyrtometer
	2. Special surface measuring	Lead strip
		Tin strip (Roth)
		Rod-cyrtometer (Beely, Elkinton)
		Glass Table (Bickings)
		Scoliosometer (Gramoko)
		Tachygraph (Rausch, Weigel)
		Camera obscura (Schildbach)
		Notograph (Virchow, Elkinton)
		Scoliosis Gauge (Barwell)
		Scoliosometer (Shulthoss, Scudder)
		Thoracograph (Biondotti, Socin and Burkart Schenk)

* Read before the Philadelphia County Medical Society, December 8, 1897.

time are Sargent's Anthropometric measurements, photography through a screen, Bradford's Scoliosometer, and the improved trolley delineator, and Rod Scoliosometer, which Mr. Thomas Elkinton has kindly placed at my disposal.

First—Sargent's Charts—The advantages of this system of measurements are that they give not only the average measurements for the given age and weight of the individual, but the two sides of the body may be compared and any defect or unilateral development may be readily detected.

Second—Photography through a Screen—This method is not original, having been employed in Boston, but the idea of photographing, first, lines upon sensitized paper, and, second, photographing the patient upon the same paper, was independently devised by Dr. Jos. M. Spellossy, one of the assistants at the Hospital of the University of Pennsylvania. This method, however, requires more time than the simple method of photographing directly through a screen made with threads. Photography of this kind requires that the position of the stand, screen and patient remain unchanged, and each subsequent picture is to be taken in the same manner. I have rendered the screen more useful by indicating the central cross section by a knot, or two oblique threads, this point being placed exactly opposite the sixth dorsal vertebra, or on a corresponding point of the front of the body, to be located with the spirit level.

Third—Bradford's Scoliosometer—This instrument[1] is the most accurate device for measuring the degree of the deformity due to rotation of the bodies of the vertebra. It consists of two arms, a scale and a spirit level. It is placed on the body with the two arms together, and the rod containing the spirit level is elevated until the horizontal is reached, when the degree may be read off.

Fourth—The Improved Trolley Delineator—This is an improvement on the Weigel machine, and is so arranged that outlines may be taken in the vertical and horizontal planes. The paper is on a continuous roll and the tracing may be taken either with a wheel or with a point. In either case the personal element enters into the taking of outlines.

Fifth—Rod Scoliosometer—This machine is not unlike the scoliosometer of Beely, but it has one advantage in that it is attached to an upright. Two points upon the spine, the seventh cervical vertebra and the top of the coccyx, fixed against two rods of the machine, against which the patient leans. The rods are pushed in singly and marked upon the chart. Any deviation is indicated upon the chart, which has square tracings upon it. The personal element also enters into this method.

THE TREATMENT OF TUBERCULOSIS WITH INUNCTIONS OF EUROPHEN.*

LAWRENCE F. FLICK, M.D., PHILADELPHIA.

This communication contains a brief statement of the condition and treatment of five patients when they first came under my care and of their condition at the present time. I divide the cases into two classes, those in the incipient stage and those in the advanced stage. By "incipient stage" I mean that condition in which there is as yet no softening; by "advanced stage," that condition in which there has been breaking down and ejection of broken-down tissue. Two of the patients were in the incipient stage and three in the advanced.

Case I. A woman, 26 years old, had been exposed to tuberculosis in her own family for a few years. She came to see me first on September 21, 1897, on account of a pain in the right shoulder-blade. She was not feeling well, but had

* Paper read and patients exhibited before the Philadelphia County Medical Society, December 8, 1897.

[1] Made for me by Dr. Howard Reed, Assistant in the Hospital of the University of Pennsylvania.

no cough. She had been chilly a great deal lately. The pulse was 68. She weighed 128 pounds. On physical examination I found impairment of resonance over the upper lobe of the right lung and prolongation of the expiratory murmur in the same situation. I placed her on inunctions of europhen and tonics. She has used the inunctions continuously since, but the tonics only at intervals. On November 30 she reported herself as feeling right well. She weighed 131 pounds; her pulse was 72; she had an occasional stitch in the back of the chest on the right side. Physical examination revealed great impairment of resonance on the right side of the chest, but not a normal condition.

Case II. A woman, about 40 years old, went to bed with pleurisy in June. She had been exposed to tuberculosis for many years, her husband having died of this disease. She had been losing flesh for some months previously, but had received no treatment. Physical examination revealed consolidation of the apex of the right lung. The woman was in bed for some weeks, and confined to the house for nearly five weeks. The record of her first visit to my office was made July 3, 1897. She then had improved a great deal, but was still very weak. According to my notes, the lung had not cleared up; the pulse was 104; she weighed 107 pounds; her appetite was fair. She had been using inunctions of europhen from the beginning, and had tonics and rest. The treatment was continued. On November 10 it was recorded that the patient had felt pretty well, but she still had pain on deep breathing. The pulse was 72; her weight was 122 pounds; the physical condition of the lung was practically normal. She is continuing her treatment, although she believes herself well.

Case III. A woman, 34 years old, came under my observation in the spring of 1895. My first record was made on May 14, 1895. She then stated that she had been sick for some years. She had a cough; expectorated green sputa, which contained tubercle-bacilli, had impaired resonance over the upper lobe of the left lung; had moist rales and gave evidence of a fair-sized cavity in the apex of left lung; her pulse was 92; she weighed 131 pounds. My record also says that she had then already gained 11 pounds in weight.

At that time I prescribed inunctions of iodoform and gave her tonics. Some time later I substituted europhen for iodoform, and began with small doses of creasote in hot water. She has been on this treatment, with slight variations and a few intermissions, ever since. She is now, and for more than a year has been, taking 45 drops of creasote thrice daily in hot water. With the exception of one serious interruption, during the spring of 1896, her improvement has been continuous. My last record, on December 6, 1897, states that she had felt right well; she weighed 169½ pounds; coughed a little occasionally; expectorated a little at times; her appetite was good; pulse 96; the physical condition of the lungs was good. When her sputum was last examined, some five or six months ago, there were still tubercle-bacilli present. She is in fair health, and is considered well by many of her friends; and it is only because of her confidence in my judgment that she continues her treatment. I have not been able to secure any sputum for examination recently.

Case IV. A lawyer, about 40 years old. Came under my care March 12, 1897, after he had been under treatment by another physician for five months. The man stated to me that during this time his condition had become gradually worse. When I first saw him he had a severe cough, was quite hoarse, had constant spasms of the bronchioles, causing difficulty in breathing; expectorated a great deal, and in the morning was chilly; had a pulse of 88; weighed 141½ pounds; had impairment of resonance over the upper lobe of the right lung, with tubercle-bacilli in the sputum. Under date of March 13, 1897, Dr. Harrison Allen made the following report as to the condition of upper air-passages:

"Swollen arytenoid cartilages and ulcerated nasal septum at the triangular cartilage. It is my opinion that the laryngeal condition is in all probability tuberculous. If there is a deposit in the lungs I would have no hesitation in saying so."

I then placed the patient on inunctions of europhen, small doses of creasote in large draughts of hot water, or a mixture of pepsin, hydrochloric acid and strych-

nin, to be taken after meals. This treatment has been kept up since, with some variations, at frequent intervals. The inunctions, with solution of europhen, have been practised constantly once a day, and the dose of creasote has been gradually increased to 40 drops thrice daily. Recently he has intermitted the creasote, however. His condition on December 7, according to his own statement and my examination, was as follows: No cough; his pulse is 76; respiration so far as subjective symptoms go, is good; there is very little expectoration; very few bacilli are present in the sputum; there is slight nasal disturbance; the resonance over the right upper lobe of the lung is much improved his weight is 168½ pounds. So far as subjective symptoms are concerned, the patient considers himself practically well, and he has been attending to his professional duties regularly during the summer.

Case V. A man about 25 years old, came under my care on June 18, 1897, after having been under treatment for a couple of years; for the attack from which he was then suffering, for about three months. I found his condition as follows: There was much marked impairment of resonance and prolongation of expiratory murmur over the upper lobe of the left lung; slight impairment of resonance over the apex of the right lung, with some prolongation of expiratory murmur near the spine. The man was frequently chilly; he coughed and expectorated a good deal; the expectoration was sometimes stained with blood; he weighed 141 pounds; his pulse was 84; his appetite was good. Tubercle-bacilli were present in the sputum. I placed him on inunctions of europhen, gradually increasing doses of creasote and tonics. He is now taking 35 drops of creasote in hot water thrice daily. His condition on November 29, 1897, was as follows: He feels right well; coughs very little; has not expectorated for a week; he has not been chilly; his pulse was 72; he weighs 151 pounds; the physical condition of the lungs was nearly normal. A few days subsequent to this date, on December 2, he had a slight cough and spat up one mouthful of bloody sputum and a few mouthfuls of thick, whitish sputum. He promptly reported himself as not feeling so well, and physical examination revealed some moist rales in the upper lobe of the left lung. His weight had, however, gone up to 152½ pounds. A microscopic examination of the sputum showed a few tubercle-bacilli in the whitish expectoration and almost a pure culture of bacilli in that stained with blood. This latter probably came from a small nodule that had softened. The patient presents the appearance of fair health. I saw him to-day and he felt very well. His weight has gone up to 154 pounds and cough and expectoration had ceased.

I now use europhen in preference to iodoform because it is not offensive to the smell, and I believe it to be richer in iodin than idoform. So far as I can formulate a theory in regard to the mode of action of the drug, I would say that as the europhen is absorbed by the blood, it breaks down and gives off nascent iodin. The chief advantage of medication by inunction lies in the gradual and continuous setting free of iodin in the blood.

In incipient cases I use the inunctions of europhen alone, with tonics. In advanced cases I give large doses of creasote in addition. I am inclined to think that the farther the case is advanced the more strongly is the use of creasote indicated.

The cases presented are fair examples of my results with this treatment. Many of my cases recover a fair state of health, but I have not yet found a way of making their recovery permanent. There is a very strong tendency on the part of cases of tuberculosis to relapse, and I am somewhat skeptical about the permanency of cure in our cases. As far as my experience goes, a cure cannot be absolutely relied upon, even after some years of apparently perfect health. I have had a number of cases in which perfect recovery had taken place so far as could be judged from either subjective or objective symptoms, and in which some years subsequently death took place as a result of acute tuberculosis in some part of the body.

In cases of incipient tuberculosis I believe europhen to be practically a specific. All the incipient cases that I have treated with it, probably eight or ten in number, recovered. Some, however, have had re-

lapses, and, as already stated, died subsequently of acute tuberculosis.

Of the advanced cases many do very well, and at least one has been restored to perfect health and has remained well for five or six years. The great difficulty in the way of curing tuberculosis lies in the amount of persistence on the part of the patient. Very few patients are willing to keep up the treatment long enough to insure permanent cure, and especially is this true when they feel well and believe themselves to have recovered.

The foregoing report is made for what it is worth. Each must judge of it for himself. The best way to arrive at correct conclusions is to try the treatment. As far as my own judgment goes, it is a most valuable aid in the treatment of tuberculosis.

CURRENT LITERATURE CONDENSED.

Irregular Menstruation Due to Anemic Conditions.[1]

The physician in practice cannot but be impressed with the frequency of menstrual disorders in girls during the period just succeeding puberty. The metamorphosis of a girl into a woman, consisting as it does of structural and functional changes throughout her body, may leave pronounced alterations in the quality or even the quantity of blood. How common it is to have a mother say, "I would like something for my daughter. She has been losing interest in everything and seems to be completely worn out. She has no appetite and absolutely no ambition for work, study or play. She seems so weak that I fear she is going into consumption."

Inquiry elicits the further information that the young lady in question is sixteen years old or thereabouts, and that she is a school girl. A year or two ago she first menstruated and since that time has been unwell only twice, or at irregular intervals, varying anywhere from three to nine months. Her bowels are either constipated or the reverse, and she may complain of headaches, vertigo, palpitation of the heart, insomnia, indigestion, etc., etc. The pale face with its sallow greenish tinge, the bleached tongue, the colorless conjunctivae and finger nails, tell well the tale of impoverished blood. Combine the history with the objective symptoms and the diagnosis is clear of chlorosis or greensickness. The absence of cough or pulmonary symptoms excludes the dreaded "consumption," but we have instead a condition of the blood in which the essential constituents are diminished and the whole quantity of the life-giving current so depreciated that the various organs of the body are unable to perform their normal functions. The uterus is small and illy developed, and the supply of rich blood it so urgently requires in its developmental state is not to be had. Is it any wonder, then, that the chlorotic girl does not menstruate regularly? It is a great wonder that she menstruates at all. Correct the anemic or impoverished condition of her blood and the physiological function of her uterus will be resumed as naturally as that of any other organ.

How this chlorotic condition can best be corrected is the next question, and one which, because of its frequency, concerns every practicing physician. Countless remedies have been presented to the profession, but far and foremost above them all is iron, notwithstanding certain high authority to the contrary. Arsenic is certainly valuable, but it ranks far below iron or even manganese in the therapeutics of anemia. In order to be most efficacious, however, the iron should be in its most readily assimilable form and the carbonate and albuminate have been supposed to present this requisite in high degree. But since manganese has grown in favor as an adjuvant to iron, Dr. Gude has submitted to the medical profession a preparation of the peptonate of iron and manganese, known as pepto-mangan, which is readily taken into the human economy and appropriated to its needs, without deranging the weakest alimentary tract, or hindering in any way the normal processes of digestion, assimilation and excretion.

[1] H. Edwin Lewis, in *Vermont Med. Monthly*, Aug., 1897.

But in order that the medical treatment of chlorosis may be most valuable and efficient, it should be augmented by auxiliary treatment consisting of careful attention to diet and exercise. It goes without saying that the food of an anemic girl should be most nutritious, and particularly abundant in albumen, while the exercise should aim to provide greater quantities of oxygen in the form of pure air, without lowering the vitality. Walking, skating, tennis or bicycling in moderation are all able to supply the demand for exercise.

Treatment on the above lines, with good habits of hygiene and a careful observance of Nature's demands, will regulate the various functions of the body, and the menstrual function will prove no exception to the rule.

Mental Evolution.[2]

In the study of nature, the first step is to describe, the next to classify, the third to explain. Each depends upon the other. An order which at first seems final gives way to a fresh one when more forms are discovered and described. The theory of creation which satisfied one generation fails when the next has arranged nature more formally and examined it more exactly. Each research will in turn occupy the first place. In biology, for example, the first stage was the description of man and other animals, human and animal anatomy; then followed their comparison and classification, the age of Owen; and then the theory of their origin, the age of Darwin. Psychology is both of later growth than anatomy, and of much greater difficulty. For long it was confined to the description of the normal human mind, quite recently the normal animal mind and the abnormal human have been observed, and the third stage of research, inquiry into its origin and development, has been attempted. It is a natural inference that the law of growth which has been accepted for the body should apply to the mind also. Heredity and variability, the two great powers of life, are as plain here as in anatomy. It is agreed, also, that these have acted by differentiation or specialization on the mental as well as on the bodily side of nature. But to go, like Dr. Bucke, in his address to the section of psychology at Montreal, beyond these broad and simple conclusions at once awakens interest, for it opens a fair field for fight, and happily for men, to whom strife is pleasure, psychology is so obscure and so difficult that the fight will be very long.

The only evidence of mental states which approaches exactness is speech, and with infants and animals which have it not our conclusions are little more than guesses. Pleasure and pain, for instance, are inferred in lower animals almost entirely from their movements, but when we conclude that a worm wriggles because the hook hurts it, we are going far beyond safe ground. It is not till we get to the highest forms of life, whose actions are regular and show purpose, that movements become sufficiently organized to supply, though imperfectly, the place of speech, and afford us evidence of the mental conditions. In them we find, or think we find, knowing, feeling, and willing already plain, and though Dr. Bucke denies their self-consciousness, many people would say that dogs could not so ape the vanity and pride of man without it. The color sense is said to be peculiar to man, but the variation of the cuckoo's eggs, according to the nests in which they are found, is difficult to explain, unless either the cuckoo knows which eggs are like hers, or the foster parents recognize and destroy those which are unlike their own. Thus, even in the highest animals, interpretation is difficult, while the immense majority of living beings are altogether beyond our powers of observation. Owing to this imperfection of its premises comparative psychology is unable to trace the beginning of mind, and from such evidence as it offers of its development only the broadest and simplest conclusions are possible.

Dr. Bucke supposes that all forms of idiocy and insanity are cases of atavism But when such an idea is presented we naturally turn to the diseases of the body for analogy. Can all malformations be so explained? Certainly all diseases cannot. Since then comparative psychology is so weak, and morbid psychology so young, we must still rely chiefly on the study of the natural mind of man at an age when it can explain itself by speech, and as Dr. Bucke points out, there are many varia-

[2] *British Medical Journal.*

tions of its powers which we more often deny than patiently observe. The development of bodies leads us to believe that the growth of mind is from the simple to the complex by differentiation or specialization of an originally homogeneous mass. That it should grow "by additions," as Dr. Bucke claims, is not what we should expect. If we may reason upon so obscure a subject, we should say that for self-preservation moral functions are variously developed in various species: fear in those that are fleet, courage in those that are strong, cunning in those that are neither; but each from an original substratum in which they were all implicit. That any faculties spring into evidence except in this way does not seem likely.

Causation of Chloroform Syncope.[8]

As evidence that true pathologic cause of chloroform syncope is in controversion of the doctrine so long received that chloroform kills by paralyzing the respiratory center, the author offers the following conclusions:—

1. Chloroform produces a primary failure of the circulating mechanism and a secondary failure of the respiratory center. The respiratory center fails to act not only because it is damaged by the drug, but because of the anemia of the spinal bulb produced by the fall of arterial tension. This is proved by the fact that the action of the respiratory center can be renewed by raising the arterial tension. The depth of anesthesia depends, as does the paralysis of the respiratory center, on the primary fall of the arterial tension.

2. Chloroform, more than any other known agent, rapidly abolishes the vascular mechanisms which compensate for the hydrostatic effect of gravity.

3. Chloroform abolishes these mechanisms by paralyzing the splanchnic vasomotor tone, and by weakening the action of the respiratory pump. When these mechanisms are totally abolished, the circulation is impossible if the subject be in the feet-down position.

4. Chlorofrom also produces paralytic dilatation of the heart. It acts directly like amyl nitrite on the musculature of the whole vascular system.

5. There are two forms of chloroform syncope: (a) During primary anesthetization. The patient struggles, holds his breath, raises the intrathoracic pressure, congests his venous system, lowers his arterial tension, and finally takes deep inspirations and surcharges his lungs with chloroform. In the first stage the left heart becomes impoverished; in the second stage it is suddenly filled with blood. This is drawn from the lungs, and is full of chloroform. The chloroform passes into the coronary arteries, and the heart is thrown into paralytic dilatation. Respiration and the pulse either cease simultaneously, or the pulse before respiration. (b) During prolonged anesthetization this arises from gradually giving chloroform to too great an extent. The arterial pressure falls lower and lower, and, secondarily, the respiration ceases because of the anemia of the spinal bulb. The heart is not in this case paralyzed by chloroform, because the drug is taken in gradually by the shallow respirations, and distributed slowly.

6. Artificial respiration and the assumption of the horizontal position, if applied in time, will always resuscitate a patient from the second form of syncope.

7. Artificial respiration,established with the patient in the horizontal posture, is also the treatment indicated in the first form of syncope; the heart should be rhythmically compressed by squeezing the thorax. If this does not quickly renew the pulse, the patient should be put in the vertical feet-down posture. The dilated right heart is thereby completely and easily emptied of blood. Artificial respiration is maintained during this maneuver, and the patient is brought once more into the horizontal posture. By rhythmic compression of the chest an efficient circulation is maintained through the coronary arteries; by first emptying and then filling the heart a fresh supply of blood is brought into that organ. If this does not prove successful on the first trial it can be repeated.

8. Inversion, that is, placing the subject in the feet-up position, or compression of the abdomen will increase the paralytic dilatation of the heart. In this kind of syncope both these forms of treatment are worse than useless.

9. In the condition of shock or emo-

[8] Leonard Hill in *British Medical Journal.*

tional fear the compensatory mechanism for the effect of gravity is almost abolished, and chloroform may easily be the last straw to completely paralyze the circulation.

10. Vagus inhibition of the heart is of no importance as an agent in the production of chloroform syncope.

11. Ether is in every respect a far safer anesthetic than chloroform. According to Ringer's experiments on the heart, ether is fifty times less dangerous than chloroform.

Legal Liability of Third Person Calling in a Physician.[4]

In a recent action by a physician to recover compensation for his professional services, it was held that one who requests a physician to attend another person professionally, without disclosing the fact that he acts as agent or messenger, is liable for the physician's charge. The services were rendered to defendant's father, since deceased. There was no dispute about the rendition of the services or their value; the only question was as to liability. The defendant, a son of the decedent, contended that the claim is one against his father's estate; while the plaintiff asserted that there is no estate to look to, the father having left no property, and that the defendant, by his conduct, made himself personally liable. From the evidence it appeared that the defendant called upon Dr. K., and said, "Doctor, I want you to come and attend my father. He had a doctor who was not satisfactory." The doctor thereupon visited the father, and rendered the services for which compensation is claimed. After the death of the patient, the doctor sent his bill to the defendant, who replied that the estate should be charged with the amount; and there was evidence that the defndant told him to send the bill against the estate to his brother, and that he (the defendant) would see it paid. Upon these facts there was a verdict for the plaintiff, from the judgment on which the defendant appealed.

In reviewing the case on appeal, Mr. Justice McAdam said, "We think the testimony is sufficient to warrant the finding. If the father had requested the son to go for the doctor, and, acting on this authority as agent merely, the defendant had delivered the message to the doctor, no liability would have attached. But there is no evidence in the case that the father ever directed the defendant to go for the doctor, and there is nothing from which it may be inferred that the defendant acted merely as messenger. Indeed, his language would seem to negative that. He said, 'Doctor, I want you to come and attend my father'; not that the father wanted the doctor to come, or that the defendant was acting in a representative capacity. The language plainly implies that the defendant was not acting as messenger, but on his own behalf. Where a person seeks to avoid personal liability for his acts, he should disclose that he is acting as agent only.

"In Bradley *vs.* Dodge it was held that where a person called at the office of a physician, and, in the absence of the latter, left his business card (with 'call on Mrs. D——, at No.—— Broadway,' written on it) with a clerk in the office, requesting him to hand it to the physician, and to tell him to 'come as soon as possible,' such person becomes liable to pay the physician's bill in attending upon Mrs. D. in pursuance of the message. The defendant in that case relied on Buck *vs.* Amidon; but the court said, 'In that case the defendant exhibited to and left with the plaintiff the telegram he had received, which, as well as the other facts and circumstances, clearly showed that he only acted as the agent of another party. In the case at bar, on the other hand, there was nothing on the card to indicate to the plaintiff, before he rendered the services, that the defendant had called at his office at Mrs. D.'s request, and that he was therefore only acting as her messenger. The defendant might very readily have screened himself from all liability by simply writing the memorandum on a blank card, or adding to that which he wrote on his own card something that would have apprised the plaintiff of the fact that he acted in the transaction for Mrs. D. as her agent. Having neglected to do this, the plaintiff was, under the circumstances, justified in believing that he was employed, and would be paid, by the defendant; and that Mrs. D.'s name was put on the card only for the purpose of indicating the person whom the defendant wished him to attend on his account."

[4] L. D. Bulette, in *International Med. Mag.*

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PHILADELPHIA, SATURDAY, DECEMBER 4, 1897.

EDITORIAL.

MEDICAL AMBITION.

Professor Osler, of Johns Hopkins University, in a recent paper to the New York Academy of Medicine, described the evolution of the physician in what branch of medicine remains after surgery, obstetrics, gynecology and the operative and mechanical parts of various specialties are removed. The course mapped out by Dr. Osler to evolve a thoroughly successful consultant and diagnostician contemplates years of patient service—not to say servitude—in dispensaries, laboratories and clinics, rigorous self-denial of worldly and fleshly pleasures; subsistence on such crumbs as fall from the tables of medical patrons and the hope that the later years of life may be passed on some pinnacle of medical fame. One may be pardoned for assuming, what was broadly hinted in other discussion of the address, that, with certain qualifying circumstances of exceptional ability and opportunity, this description was autobiographical.

Perhaps the chief value of the address was in fixing attention on the modern trend toward surgery and mechanical medicine, and away from the intellectual and non-mechanical exercise of the healing art. The point next in importance was the consummate skill with which Dr. Osler warned the ambitious young medical man against the tendency to explode into a specialist. These tendencies, essentially one, have of late years acquired alarming proportions, and THE REPORTER rejoices that Dr. Osler so nobly vindicated the dignity of general medicine, and struck a sturdy blow against the quackish presumption of some that the specialist stands a round or two higher on the medical ladder than does the general practitioner.

Although these are the principal points of Dr. Osler's address, THE REPORTER can not resist considering the matter from the standpoint of the man who is yet in position to heed the warnings, and, perchance,

to profit by the advice offered in the address. We are all, actually or in retrospect, men with ambitions to be fulfilled, possibly with ambition satisfied or disappointed, and the natural tendency in frank consideration of such a matter is to estimate the accuracy of Dr. Osler's argument by the extent of its applicability to conditions within personal experience.

How far can the average medical graduate command opportunities such as mark the progress of the type of physician portrayed in glowing colors? The *Medical News* suggests what, to us, seems the fallacy in Dr. Osler's logic: "Those who hold hospital appointments, as well as aspirants for such appointments, are painfully aware that there is practically no 'reward of merit' system in the hospitals of this city, and the dispensaries connected therewith."

What is said of New York applies literally to other localities, moreover to almost every material evidence of progress recognized by the medical profession. Apparently most young medical men who are engaged in dispensary service, who are cultivating the favor of prominent medical men, who "do specialty acts" for the crumbs of practice which may be tossed to them, who are living in hopes of professorships and clinical advancement, are assured by something more than their own ambitious desires of a chance of promotion, and depend the less on the crumbs which they jump for, because they know of a substantial luncheon in preparation by wealthy relatives. It is true, as Dr. Osler implies, that there are opportunities for fame in clinical medicine open to any young man of good ability who is industrious. So, too, ambition, supported by industry and ability, may achieve the honors of a governor, or even a president. In calling attention to this, THE REPORTER pays the highest tribute to the integrity and disinterestedness of the man who, from the summit, fails to see how many who have risen part or all of the distance have been hoisted up by influence.

In not a few instances the crumbs upon which the aspirant feeds appease the appetite of vanity rather than furnish support for genuine success in practical medicine, and sometimes the patron, after drinking the cup of success, sprinkles his henchman with the dregs and lees of dishonor. The Lazarus of medical Dives would better economize his adhesive plaster to strap his own ulcers, and seek for independent drudgery in the fields of mediocrity.

This is not the only true picture for the medical aspirant, but is an antithesis to the more pleasant one drawn by Dr. Osler. Both are true, but represent extremes. Between them is the type of average medical success in which ability, tact, industry and influence are blended together. Moreover, we must not forget that there have been Abraham Lincolns in medicine: men who have risen from poverty; who have never been known by another man's livery, however honorable; who have risen to success only as they have themselves dug and hewed the steps on which they might plant their feet.

The gratification of ambition entails the sacrifice of many comforts, and among them the great blessing of privacy. Some men are adapted to public life, others miss too much by abandoning, till their youth is past, the pleasures of home and society and the thousand innocent diversions that make life worth living. Dr. Osler, of course, has no intention of addressing his paper to such men as these, nor can he be fairly construed as denying that surgery, or other form of special practice, are also worthy routes to success.

Two assumptions in Dr. Osler's paper are scarcely self-evident: the superiority predicted of institutional practice, and the paramount honor of holding teaching positions. We fail to see why the acme of ambition should be a line of dispensary patients or a row of cots in a hospital

ward; or why it should be held a greater honor to address one's remarks to undergraduate students than to mature physicians. We do not wish to be misunderstood as under-estimating the advantages of either hospital or college work, least of all as expressing an antagonism which would at once involve us in inconsistency. We simply wish to emphasize how grand an opportunity every able and hard-working physician has to study carefully and to treat scientifically his private patients, and what a scope there is for clinical research in one's own laboratory, what a field for mental tourneys and courteous rivalry in journal and medical society, what fame there may be—and is—outside as well as within university walls.

ABSTRACTS.

SYPHILIS.*

The cause of the disease is unknown. Observers have found bacilli claimed specific in the secretions and tissues of syphilitics. Others have found the same bacilli in various pathological or normal secretions and tissues. No chemical substance, no corpuscular element has been found to account for the contagion and effects of the disease. Whatever be the ultimate cause, virus exists in the blood and tissues. Serum is innocuous, but the corpuscular portion of the blood is virulent. Late observers believe that abrasion must exist for the virus to gain entrance into the system.

At the point of infection there appears, after an interval of 2 to 3 weeks, a small pimple on a reddened base. This pimple is covered by a small scale which later drops off, exposing a pustule. This stage of the disease causes little or no inconvenience and seldom comes under the notice of the physician. The pustule ruptures in 4 or 5 days and a small ulcer 1-32 to 1-16 of an inch in diameter results. This ulcer, although small, has many of the characteristics of a primary syphilitic sore. It is flat, not deep, is circumscribed by healthy tissue, and looks as if cleanly gouged out of the skin. The surface is smooth and glossy, may be dotted with small white points and secretes little or no pus. The ulcer gradually enlarges and may attain a size of a five cent piece, rarely larger. In the third week, the fifth or sixth of the disease, induration makes its appearance at the base of the ulcer. This induration increases in size and hardness and becomes a little larger than the sore. It is usually elastic in feeling, but may become almost of stony hardness. This indurated base elevates the sore above the surrounding tissue and gives it another common characteristic. The induration has been thought to be so characteristic of a specific primary lesion that that form of ulcer has received its name from this peculiarity, hard chancre. But induration is by no means an invariable symptom of a specific ulcer. The induration is due more to location than to any specific pathological change due to syphilis. Finger says, that the induration is due to a round cell infiltration around the blood-vessels, therefore the chancre supplied with vessels situated in the pars papillaris will have a superficial induration that has a parchment-like feel, *pergament chancre* (Ricord). This form we see on the glans penis. If the blood supply is mainly situated in the pars reticularis, these deeply seated vessels will be involved and we see the deeply seated, elastic infiltration of a chancre of the sulcus coronarius.

After the induration has reached its height the ulcer shows a tendency to heal, and in 8 or 10 days, the 8th or 10th week of the disease, forms a cicatrix. Not rarely the ulcer, already healed, breaks down and a second or third ulcer makes its appearance, which heals more slowly than the first. This *chancre redux* may be spontaneous or result from irritation. Indura-

* G. A. PUDOR, M. D., in *Jour. of Med. and Sci.*

tion persists for some time after the ulcer has healed. Traces may be felt weeks, months or even a year after the ulcer has disappeared. Under specific treatment the absorption is more rapid. In a certain few cases the induration increases after the healing of the chancre, post-cicatricial induration.

Beside the typical indurated primary lesion of syphilis there are other forms by no means so characteristic. We may have a true syphilitic papule at the seat of infection. This is usually extra-genital and disappears in a few weeks, leaving a brown pigmentation. Rarely, in patients broken down by disease or alcohol, a chancre may become phagedenic. A small area of necrotic tissue appears in the sore. This gradually increases until a line of demarkation is formed, when the necrotic portion falls away. This separation, especially on the glans penis, may be attended by alarming or even dangerous hemorrhage. This form of chancre seems to have been common in the early history of the disease. Not only portions of the penis but the whole organ and even the scrotum became involved in the necrotic process before the line of demarkation was set up. To-day we meet no such horrible effects of the disease, the process usually limiting itself to a small area of glans. The sore left heals slowly with more or less resultant deformity according to the loss of tissue.

Should the syphilitic virus enter a pre-existing ulcerative condition we have a slight variation in the course of the disease. Should the point of entrance be a ruptured herpes vesicle the primary chancre appears in the course of a week or less. The chancre, however, runs a regular course. The implantation of syphilis in an ulcus molle is by no means rare, *chancre mixte* (Rollet). The typical specific lesion will appear in such a case 2 or 3 weeks after infection. The ulcus molle will gradually undergo metamorphosis into the specific form.

The clinical appearance and the course of the genital chancre in the female is often atypical and irregular. Basedow distinguishes two forms of specific sore on the female genitals, the ulcerative and erosive. The former is typical while the latter, as its name indicates, is a simple erosion. The erosive variety, especially when complicated or masked by a purulent discharge from the vagina, is indistinguishable from any slight erosion that may occur on the part. Such an ulcer heals in from 10 to 12 days leaving no trace behind. If irritated by secretions or by coitus it may persist much longer.

On the labia majora we usually see typical hard chancre. It may be on any portion of the labium, and is shallow, elevated, indurated and has the other characteristics of a specific sore. The ulcer is often accompanied by edema of the labia which may extend to the mons veneris and to the clitoris. The ulcer may begin seemingly at a hair follicle and in its development involve other adjacent follicles. It has all the characteristic of hard chancre except that it is not circular, but has scalloped edges. On the labia minora we usually see an ulcer with a parchment-like base, or a simple erosion.

In the vagina we find the greatest difficulty in diagnosis. Ulcers in this locality seldom come under the observation of the physician. Here the erosive variety of specific ulcer gives little or no discomfort to the patient who consults the physician only on the appearance of the secondary symptoms. The vaginal mucus membrane is so elastic that it is rarely injured during coitus, and the virus of syphilis seldom effects an entrance through this portion of the genital organs. At the portio vaginalis, on the other hand, we not rarely see a typical hard chancre. This portion is often injured during childbirth and the small lesions that remain patent offer ready access to the specific germ.

Extra-genital chancres are met with in from 2 to 10 per cent. of all cases of syphilis. Specific lesions may occur in any portion of the body, although certain organs are more frequently affected than others. A very large proportion of extra-genital chancres are acquired in a perfectly innocent manner.

The lips and oral cavity are by far the most common seat of this form of primary lesion of syphilis. The reason is obvious. More than any portion of the body except the hands, the lips come in contact with the outside world. Kisses from syphilitics, polluted articles of table ware, wind-instruments, the blow pipes of glass-workers, and many other articles may be the carriers of syphilitic virus to the lips

or mouth. A cracked lip, wounded gum or tongue, and the follicles of the tonsil offer an open door to the germ of syphilis. In this portion of the body we find nearly 50 per cent. of all cases of extra-genital chancre, of which the lips alone supply nearly two-thirds. On the lip a small crack quickly resolves into a specific ulcer covered with a crust. On removal of the crust we find a shallow, glistering ulcer on a hard base. When accompanied by glandular symptoms the diagnosis can hardly remain in doubt. Herpes labialis and epithelioma do not resemble the specific sore closely enough to be confounded with it. The history of either is not that of the chancre. Sychoris parasitaria may exhibit the induration of syphilis, but the surface is pustular, not ulcerative.

The tongue is rarely the seat of specific chancre, but if so the tip is usually the part affected. The tip will have the appearance of having been cut off by some sharp instrument, leaving a smooth granulating surface. There may or may not be an indurated base to the sore. As a rule the pain is considerable, especially during mastication. Cancer of the tongue cannot be mistaken for the primary sore. A mucus patch or ulcerating papule might be mistaken for the primary lesion. In such a case, however, we usually see several such patches and moreover the physician will usually be able to obtain the history of a previous ulcer, or some visible sign of secondary syphilis will be present.

The gums are rarely the seat of a specific chancre. When so it is usually the result of contagion from unclean instruments in the hands of a dentist. The diagnosis is impossible without a direct history or some further symptoms.

The tonsils are frequently the seat of the primary lesion of syphilis. We may see a typical indurated sore, but as a rule, we see only a small erosion of the gland. The clinical appearance may resemble diphtheria or "sore throat," but the attack is not acute and persists weeks not days. Fever is never present. The history of epithelioma is one of greater chronicity than that of chancre, still until secondary symptoms appear diagnosis is very doubtful.

Chancre of the breast was formerly more common; statistics placing it next to the lips in frequency. Now, however, we realize the danger of suckling syphilitic children and therefore this seat of the initial sore is becoming more rare. Inasmuch as nursing a syphilitic baby is the almost invariable cause the diagnosis is easy—we can trace the cause. The sore is as a rule typical.

Chancres of the fingers are occasionally met with. Finger in 10,000 cases saw 49. The diagnosis is difficult. The ulcer is not typical except in that it resists ordinary treatment. If the ulcer be on the extensor surface of the finger over the matrix of the nail, the nail will be permanently disfigured or destroyed.

Chancres on other portions of the body are rare. On the epidermis of the neck, ears, eyelids and nose, the cause is usually the result of a quarrel with a syphiiltic, and a scratch or bite from such a one. Diagnosis in such a case is rarely made until secondary symptoms show.

Chancres of arms, legs and body are very rare and need only to be mentioned. The ulcer is usually typical.

The minute pathological anatomy of the primary lesion of syphilis is by no means characteristic, nor does it afford a satisfactory explanation of the clinical aspects of the disease. We find a dense cellular infiltration of round nucleated cells, which do not differ from the granulation cells of inflammatory growth generally. According to Unna we have a true connective tissue growth around the blood vessels which is a hypertrophy of the outer coat of the vessel. The intima of the vessel is also invaded, according to Auspitz, by an inflammatory process producing *arteritis obliterans*. We have as yet no pathological appearance truly characteristic of the disease.

The diagnosis of a primary sore is no easy task. The difficulty lies in differentiating the ulcus molle and ulcus durum. Were the history of a venereal patient to be relied on we might expect aid from this source, but "quivis syphiliticus est mendax." The time elapsing between the exposure and the appearance of the sore is usually unknown, as there has been more than one exposure. The source of infection is seldom to be discovered. We have to trust to the so-called characteristics of soft and hard chancre in differential diagnosis. Unfortunately these are limited to either form of chancre. The ulcus

molle may be indurated, and vice versa. The soft chancre is soft, irregularly circular, deep, with an irregular granulating surface which is bathed in pus. The specific chancre is hard, sharply circumscribed and circular, shallow and with a smooth glossy surface which secretes a serous fluid. The soft chancre is auto-inoculable, and is often multiple. The hard chancre is usually single and cannot be inoculated on the same person except in the very early stages of the disease, the first week perhaps. One symptom of the primary stage of syphilis is of vast diagnostic value, the swelling of the lymph glands of the body, *lymphadenitis syphilitica.*

This symptom makes its appearance a few days after the chancre, that is, in the third to the fifth week after infection. The induration involves a number of glands and is bilateral. This glandular swelling is chronic, as a rule painless, and without inflammatory symptoms, redness of the skin or raised temperature. The hardness is that of a tightly stretched air pillow although it may become almost stony at times. In the sixth or eighth week of the disease, the swelling invades all the lymph glands of the body. The glands in this stage have the characteristics described. Bubo, from a non-specific sore, involves as a rule one side only, and one or few lymph glands. Such a bubo is painful, inflammatory, tends to suppuration and seldom or never involves lymphatics other than those nearest the ulcer. The syphilitic bubo rarely suppurates. As a rule, the size of the initial syphilitic lesion is in direct ratio to the number of the glands involved. The glands nearest the ulcer are at first to be enlarged, except in one case—the glands of the axilla become indurated in chancre of finger or hand rather than the cubital glands. In chancres of the lips or mouth the submaxillary glands are first involved, of the ears or face the cervical, and so forth. Universal lymphadenitis is almost pathognomonic of syphilis. The glands on which we rely chiefly in making diagnosis are those most superficial, the inguinal, cervical and cubital. The lymph vessels have also been found to be involved in this process. Chronic lymphanginitis may often be made out on the upper arm and on the penis. On the former, enlarged lymph vessels extend from the cubital to the axilliary gland. In specific chancres we often find on the dorsum of the penis a band-like infiltration of the lymph vessel, broken by small bead-like bodies giving the feel of a string of beads.

The characteristics of the primary lesion and the chronic lymph-adenitis may enable a diagnosis, but it is better and safer to be very guarded in diagnosis. Mistaken diagnosis has caused years of suffering or has changed the entire course of a life. It is advisable in nearly all cases to make unqualified diagnosis only when we see secondary symptoms.

The therapy of the primary lesion of syphilis is simple. It may be surgical or medical. The profession is divided as to the utility of surgical treatment. The diagnosis of the primary sore is so difficult that if excision be not followed by secondary symptoms, the case is open to doubt. Many observers, however, conclude that the disease has in some cases been aborted if not averted by excision of the chancre. Surgical treatment is very limited in its application, and must be instituted early in the disease to be of any benefit. When the glands show induration, operation is useless. The disease is then certainly general. The glands themselves have been operated on, but this is a grave operation and all glands cannot be reached. The limit of time has been set by Koebner as not more than 20 days after infection. Another limitation is that of location. Only chancres so situated that they can be easily and completely removed without too great loss of blood or tissue, are suited to surgical treatment. Such are chancres on the prepuce, skin of penis, scrotum or body generally. On the glans penis or in the mouth, the operation can not be radical enough to be of benefit. The operation is simple and need only include all of the ulcer and induration. It is to be done with all surgical precaution and to receive ordinary attention. Any of the induration or sore not included in the operation will cause renewal of all symptoms. If perfectly done the wound will heal as any other wound, thereby avoiding the long treatment of an open ulcer and dealing only with a simple cut. This is enough to commend the treatment in any suitable case.

Medical treatment is even more simple.

Caustic agents, as nitrate of silver, nitric or chromic acids, etc., should be avoided. They cannot, in any case, remove the entire sore, usually serve only to increase its size, and often, after application violent inflammation and phimosis ensue. Caustic in all cases of venereal ulcer, specific or otherwise, causes needless suffering and does no good. The actual cautery vigorously applied is recommended by some authors, but is of very doubtful benefit.

Local medication should be limited to dusting the ulcer with calomel, or boric acid, iodoform, iodol, europhen, as the case demands. Once a day the sore should be washed with a mild salt or boric acid solution, carefully dried and dusted with one of the above dry powders. Antiseptics are useless. Potassium permanganate acts no better than calomel and is more difficult of application, hence the balance is in favor of the latter.

THE USE OF OPIUM IN PNEUMONIA.*

In Dr. Robert Bartholow's work on "Materia Medica and Therapeutics" is the following paragraph: "In pneumonia opium is a remedy of very doubtful utility. Its narcotic action certainly disposes to pulmonary congestion, although it may be cautiously used to allay pain and moderate cough. Although this was the general professional opinion and is now largely held, there are those who entertain very different views regarding the utility of opium in pneumonia. Thus Professor A. L. Loomis, of New York, maintained that the disease may be aborted, or, at least, decidedly modified in severity, by the subcutaneous injection of morphin in the first or congestive stages of the disease."

A careful examination of the standard works on therapeutics will reveal, without a single exception so far as I have been able to find, the fact that they advise against the use of this drug in this disease except under urgent conditions of pain or cough, and the most explicit caution is urged with regard to its use under the latter circumstances.

Now let us refer to the views of the late Dr. Loomis on this subject. In his work on "The Diseases of the Respiratory Organs," published in 1876, will be found the following on the use of narcotics in this disease: "Narcotics, even in cases accompanied by great restlessness and delirium, must be used cautiously, especially if there be evidences of cyanosis; full doses often increase the prostration and at the same time fail to produce sleep. When a large extent of lung tissue is involved, small doses of opium sometimes produce the most complete narcotism."

Nine years after we find a very decided change in his opinion here expressed. In his very able article on "Croupous Pneumonia" in "Pepper's System of Medicine," published in 1885, he writes: "The experience of the last few years leads me to the conclusion, that during the developing period of the disease, when the pneumonia blow is first struck and until the pneumonia infiltration is completed (usually for the first four days of the disease) if the patient is brought under the influence of opium and held in a condition of comparative comfort by hypodermic injections of morphia, repeated at regular intervals, he is placed in the best condition not only for resisting the shock but also for combating the activity of the pneumonia." Let us go farther. If we look into the "Text-book of Practical Medicine," by this author, published in 1895, we find this same statement repeated. He adds: "The great relief and comfort which it gives the sufferer in the first four days of his struggle are sufficient to commend it.'

Austin Flint, Sr., gave expression to similar views. One rarely finds in medicine, or, in fact, in any department of life, such an amazing difference of opinion. To my mind, therefore, it presents an interesting subject of study and a very vital one to invite expression of opinion on, opinion that is based on the daily communion with the disease. Radical, dogmatic statements, appearing in text-books and works of reference which form the basis for medical procedures, should not depend on the opinion of a single individual. To use a little less dogma and more logic is an apt suggestion in therapeutics. My desire is to find others who can produce evidence

* H. A. Fairbairn, M.D., *Brooklyn Med. Jour.*

of the efficacy and safety of this unique method of treatment. From what I have seen it appears to me that the criticism Dr Loomis made of the relief afforded by the calomel, veratria, aconite, and other methods in this line, will apply to his own, "that it is an exceedingly dangerous relief, as it is obtained at the expense of vital power."

In considering this question let us first study the action of opium, and then inquire what opportunity is offered for its beneficial use in the various forms of the disease. That opium interferes with the proper action of the digestive organs is a statement supported by authority and daily experience. The dry tongue, the impaired appetite, the nausea, the constipation, are the regular sequels to its administration. Or, in other words, it checks secretions, in short, it interferes with the very channels through which we expect to introduce the means to support strength.

Let us go a step farther. What is its action on the respiratory function? It is impeded, pulmonary congestion is invited, and the amount of carbonic acid eliminated decreased. We find, therefore, that we are using a remedy, or rather are advised to use a remedy, which tends to weaken what we want to strengthen, which tends to prevent the elimination of a poison which we desire to eliminate. So far its capabilities for good are not very striking in this disease.

Its action on the bladder is such that the catheter will have to be called into requisition. Its action on the kidneys is interference with its function.

To sum up the disadvantages of the drug, we are pursuing in its use a very fair course to retain poison in the system intended to impede the introduction of supportive measures; to sustain the system in its contest with such poison; to aggravate some of the conditions which we are combating.

What is the benefit offered? The possible relief of pain; the possible production of sleep; and the temporary relief from shock, with the possibility of greater depression following.

In the treatment of a serious disease the physician studies the clinical history, the points of danger which may present themselves, the methods of termination, and directs his efforts to aid the natural tendency to recovery and to ward off a fatal issue.

If we analyze the cases of croupous pneumonia we have met with we are enabled to classify them. Dr. A. H. Smith, of New York City, in a very able monograph on the "Clinical Divisions of Pneumonia," has brought them together under three heads, the sthenic, asthenic, and obstructive. Let us adopt this classification. The first is often characterized in the beginning by severe chill, pain, and high temperature. The local lesion in these cases is the feature, the constitutional symptoms are not urgent. Their tendency is to recovery and the medication required very little. The inception of the disease often portends trouble but the balance of the system is quickly restored. Or, to put it in very plain language, the system is able to cope with the disease. Shall we proceed to complicate such by the administration of morphia? When called to such a case in the beginning shall we order the morphia treatment? Is it not preferable to ease the pain with local remedies, such as heat or cold, strapping the chest, cups, sinapisms? The second class is the asthenic. Here the systemic disturbance is great. There is exhaustion from the first, produced, no doubt, by some poison acting on the muscular and nervous systems. The indication for treatment here is plain. It must be actively supportive until the poison has spent its force and the tissues have returned to their normal condition. Shall we block up the avenues of supply and waste by opium in such a case? Is it not better to administer alcohol and heart stimulants without resorting to a remedy which may depress? The third class, the obstructive, is characterized by the local lesion chiefly, and its obstructive effect on the blood-current, with engorgement of the right heart and venous system. Shall we use opium in this class? The counter-indication is absolute. I look in vain for any case where its continuous use is not counter-indicated.

I have taken care to name the varieties in order to find one in which this treatment might be applied safely. The author says that it is "employed to overcome or mitigate the impression made upon the nerve-centers by the morbific agent which is operating to produce pneumonia." Ner-

vous shock may characterize the inception of all, but that phase in two varieties passes off in a short time. It appears to me that we are not warranted in instituting a treatment, when "the blow is first struck," which may lead up to and aggravate later stages. By so doing we are in a fair way to complicate the disease; or, in other words, we have a heroic method recommended to us with no sure guide when to begin or how to continue.

If we examine the death-rate in pneumonia we are led to believe that the hypodermic syringe with morphia has taken no prominent curative part in the treatment of this disease during the past fifteen years. The fatality has not decreased. It is regarded in the same serious light that it has always been. There is no specific in pneumonia. That every one will allow. Routine treatment is admissible less in this disease than others. The conditions vary, the treatment must vary to meet those conditions. The longing for specifics may explain the extreme measures which have been employed in the treatment of this disease from time to time. The therapeutic excursions in this line have been astonishing at times. They go to illustrate the imperfection of the human mind, and that the medical as the legal, the philosophical, the scientific, and the religious mind will at times fly off at a tangent.

Now that we have discussed the regular and continuous use of morphia in this disease, let us examine if it is admissible at all. The almost universal testimony is, only with great caution and vigilance. Small, very small and frequently repeated doses of morphia may relieve cough and stimulate for a short time, but even this method of procedure must be guarded, especially as the disease advances. What is said about the croupous variety can be reiterated with greater truth about the catarrhal variety. On several occasions I have witnessed the subjects of this disease enveloped in a narcotic cloud and have been reminded of the condition produced by exposure to extremely low temperature, where the victim undergoing the freezing process is anesthetized by it, so to speak, into a delusive condition of restfulness.

I am forced into the conclusion that in this disease the administration of opium is of very doubtful advantage and attended with peril. Conditions may arise which require this remedy; under such circumstances extra vigilance will be required.

THE QUESTION OF INFANT FEEDING.*

By infant feeding is meant the nourishment, during the first year, of infants who are deprived of the maternal breast.

The forms of infant feeding practiced to-day may be reduced to three:

1. The exclusive use of commercial foods, or of canned condensed milk.

2. The use of fresh cow's milk with the addition of various foods or substances which are believed to modify the milk so as to increase its digestibility, particularly as regards the casein.

3. The use of only the elements of cow's milk, either with or without some form of sterilization. Cow's milk may be modified by simply diluting with water, or also by the addition of sugar; or more complex changes may be made, such as the various combinations of milk, cream, milk sugar, etc., and these mixtures, or plain or diluted milk may be employed with or without some form of sterilization.

While many points remain to be settled by future study, it is to the third position that the great majority of those have come who are qualified by training and experience to speak upon this subject. There are few subjects in pediatrics upon which such unanimity of opinion exists, as that fresh cow's milk is the best infant food, and that to depend upon anything else as a permanent food is to hazard the child's life.

It is not from prejudice that canned condensed milk and the commercial infant foods have been given up by intelligent physicians as substitutes for breast feeding; but simply because experience has shown the dangers which lurk in them, and the objections to which they are open. Infant feeding is a problem in nutrition, and the success of any method is to be judged by its ultimate results. The immediate results with these foods are not infrequently most satisfactory and delight-

* L. Emmett Holt, M.D., *Pediatrics*, Nov., 189-.

ful. As an illustration, take the case of an infant who has been fed upon cow's milk not properly adapted, by modification, to its digestion. How often does one see as a result of such feeding continued fretfulness and discomfort, often attacks of severe colic, and the passage of stools containing large, hard curds. At this juncture the substitution of some commercial food may be followed by the almost immediate disappearance of the uncomfortable symptoms. The experiment is interpreted by the mother, and sometimes by the physician, to mean that cow's milk is not a suitable food, while one has been found in the commercial article which exactly meets the case.

But suppose that this food is now continued as the sole diet for several months, and what follows? The prolonged and exclusive use of such a diet reveals its fatal lack of some of the essential elements of food required by the growing infant,which are supplied by fresh milk and by nothing else. It may be three months, and it may be six months, before the effects of this is seen, but they come with great regularity, sometimes in the shape of scurvy or rickets; sometimes as a general malnutrition; as a consequence of which there is so feeble a resistance that any acute disturbance may prove serious, or it may lay the foundation for delicate health during all childhood.

Within the past few years upwards of twenty cases of infantile scurvy have come under my observation, being, almost without exception, in children whose principal or sole diet consisted of some one of the commercial foods.

Canned condensed milk is still widely used by the laity, and, I am sorry to say, is advised by many practicing physicians. During the past five or six years I have been in the habit of examining critically, all children with reference to the effects of the prolonged use of various forms of diet, and I have yet to see an infant reared solely on canned condensed milk who did not exhibit signs of rickets to a greater or less degree, though a few would have passed at first glance as particularly healthy specimens. The feeble resistance of condensed-milk babies to acute disease has long been noted by observers.

The objection to commercial foods which require the addition of fresh cow's milk is not so serious as the group just considered. Some of these foods, consisting largely of soluble carbohydrates, may supply the additional amount needed by cow's milk when used for an infant food. But that they do more is, I believe, not true; and until further evidence is adduced, they cannot be regarded as modifying the casein of cow's milk, or increasing its digestibility. For routine use they are not to be compared with milk sugar, as used in ordinary milk modificaton.

Foods which contain a large amount of unchanged starch are successful in inverse proportion to the amount used. They serve as diluents of the milk and do not affect the nutrition in one way or the other.

Foods of this class are successful because of the fresh cow's milk which is used in their preparation, especially if the method of preparation secures a proper dilution for the casein of the cow's milk.

The addition of digestive ferments to milk, with the purpose of assisting the infant by a partial predigestion of the casein, is at times extremely useful. It should not be continued indefinitely, or the stomach will not acquire the capacity of doing this work. As a routine method of feeding it is greatly inferior to the proper modification of the elements of cow's milk.

All students of infant feeding agree that no artificially-fed infant can safely be kept upon any permanent diet which does not contain fresh cow's milk. As temporary substitutes the commercial foods may at times be admissible, but their use should go no further.

While we must depend upon milk, and practically upon cow's milk, and are not upon safe ground without it, certain problems still present themselves for solution. Cow's milk differs from breast milk both in its chemical composition and in the bacteria which it always and everywhere contains. Besides milk is easily contaminated, and may become a vehicle of disease. To overcome these obstacles is the problem which has occupied the students of infant feeding for years. Whether the difference in chemical composition, or the presence of bacteria is the more important, is still a matter of discussion. In Germany the latter opinion seems to prevail, and consequently the great majority

of German writers still advocate sterilization at a high temperature (212° F.). In this country, on the contrary, high-temperature sterilization as a routine practice is now advocated by very few, heating to a lower temperature (155° to 170° F.), *i.e.*, Pasteurization, being regarded as quite sufficient for all ordinary purposes; even this is thought, by very many, quite unnecessary where the production and handling of milk can be properly guarded, except in very hot weather.

It is in America only that anything like accurate modification of proportions of the elements of cow's milk has been attempted. The methods employed in Germany in *"Gärtner's Fett-milch,"* are crude in comparison with those used in the milk laboratories of our large cities.

The subject of milk modification is of interest in the present connection to glance at the steps by which our present position has been reached.

First was the period of indefinite modification, in which the milk was simply diluted with water, and sometimes sugar, usually cane sugar, was added.

Secondly came the period of definite modification. After the composition of breast milk had become pretty accurately known, there was used various milk and cream mixtures in which it was aimed to secure the exact proportions of fat, sugar, proteids, etc., which existed in average breast milk. A single formula was made to do duty for all infants, one physician advocating one and another another—one which was widely employed analyzing 4 per cent. fat, 7 per cent. sugar and 2 per cent. proteids. This was to be diluted with water in the case of young infants.

Thirdly, the period of accurate modification. According to this method which is now widely used, the proportions of the different milk elements—fat, sugar, proteids, etc.—are varied separately according to the age and digestion of the particular infant under observation. Following this plan it is usual to start with a milk the composition of which resembles breast milk, except that the percentage of proteids is considerably lower on account of the difficulty which the young infant has in digesting the casein of cow's milk. The proteids are then gradually increased with the child's powers of digestion. In carrying out this method it is of great advantage to have the assistance of a laboratory, such as have been established in half a dozen of our larger cities, but the principle can be carried out anywhere if the physician knows even approximately the composition of the milk and cream he is using, particularly the amount of fat they contain. It is necessary to have some way of expressing definitely the proportions used, and none is so satisfactory as that of giving the percentages of the different elements, fat, sugar, etc., employed.

It is not claimed that any modification of cow's milk can make it identical with breast milk, in chemical composition or in the digestibility of its proteids, but that we can approximate the natural food of the young infant more nearly by a modification such as has been mentioned, than by any other form of substitute feeding. Such feeding has certain advantages over breast feeding in that proportions of the different elements, fat, proteids, or sugar, may be easily altered separately in cases where any one may be difficult of digestion, this being possible in the case of breast milk only to a limited degree.

We pass to consideration of the other objection to cow's milk as an infant food, *viz.*: its bacterial contents. The presence of the germs of the specific infectious diseases—diphtheria, typhoid fever, tuberculosis, etc.—may be a source of great danger, but after all not a very frequent one. It is a danger that, with the supervision of milk production which it is easily possible to give, can be removed altogether. It is not of course meant that such supervision now exists, except to a very limited degree, but the experiment has gone so far as to demonstrate that such milk can be secured anywhere if either the public or the medical profession are united in demanding it.

The presence of other bacteria are for ordinary purposes not less important. These are those which affect the keeping properties of the milk and to some degree, no doubt, its digestibility. Their presence is constant, varying from a few thousand to four or five millions to each cubic centimeter, depending essentially upon the care exercised in the handling of the milk, and the time since it left the cow.

There are two methods of getting rid of the bacteria of milk: the first to destroy

them by heating the milk; the second to keep them out by the exercise of the most scrupulous cleanliness in the production and handling of the milk, and greatly shortening the time from the cow to the infant.

The whole question of milk sterilization is still *sub judice*. That simply heating cow's milk to 212° F. for thirty, sixty or ninety minutes thereby fits it for infantile digestion, I do not believe. My experience is that the heating of milk in this way does not greatly influence its digestibility, although I recognize its value in cities during hot weather in the prevention of diarrrheal diseases. The value of milk sterilization consists in improving its keeping qualities, and in the destruction of pathogenic germs, but that with milk which is fresh, and as free from bacteria as has been shown to be practically possible, sterilization is unnecessary. I am almost willing to say, undesirable, unless milk must be kept more than thirty-six hours and no ice can be had. This will, I believe, be the milk of the future. For the present, however, some form of heating milk, is for general use, desirable, the lower temperature 155° to 170° F. for thirty minutes, being greatly to be preferred to higher temperatures and longer periods.

In closing this cursory survey of the question we will first summarize the points which may be considered as well established, and then mention some of the most important questions still under discussion. It is well established:

1. That good breast milk is the best infant food.

2. That no substitute for breast milk can be trusted which does not furnish the same elements, fat, sugar, proteids, etc., as breast milk.

3. That these elements are found only in the milk of other animals, cow's milk being the only one that is available for general use.

4. That cow's milk requires some modification before it is fed to infants; first, because the proportions of the different elements (fat, sugar, etc.), are not the same as breast milk; and secondly, because some of these elements, notably the proteids, are not identical with those of breast milk.

The important questions in infant feeding which are now in dispute are:

1. With reference to heating milk: Whether all milk shall be heated, if so, to what temperature and for what time; whether the purpose shall be mainly to destroy pathogenic germs, or to improve the keeping properties of the milk; also whether heating improves its digestibility, or the contrary.

2. With reference to cleanliness: What the standard of a "clean milk," bacteriologically speaking, shall be; also whether the exclusion of pathogenic germs by care and intelligence, and a great reduction in number of saprophytic forms by scrupulous cleanliness in milk production, may not give us what we need—clean milk a few hours old, which will have all the advantages of Pasteurized milk without any of its possible disadvantages.

3. With reference to milk modification: Whether such accurate modification as is measured by variations of small fractions of a per cent. is really essential, or whether less accurate modification may not give equally good results provided the original milk is the best possible. Much is still to be learned regarding precise indications for varying the proportions of the different elements in milk modification.

Infant feeding is a large subject, and let no one think to secure the best results without giving both time and thought to the problem. It is still a rich field for study, which will amply repay any one who devotes himself to it.

Administering Anesthetics.

The giving of an anesthetic is no trifling matter. It is of such importance that he who gives it should be one who is willing to give his entire time to it, ready and alive to recognize emergencies, and, above all, to know what to do when the emergency arises. Such service should be paid for liberally, and not considered, as too frequently it is, especially in smaller towns, as a complimentary privilege to the operator, a free pass to the surgical operation; and consequently more attention is given to the operation than to the anesthetic, with the result that the signs of dangers are overlooked until profound disturbances are especially imminent.—*Medical Fortnightly.*

SOCIETY REPORTS.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Stated meeting, November 10, 1897.

The President, DR. JAMES TYSON, in the Chair.

DR. G. E. DESCHWEINITZ read a paper entitled

Abscess of the Orbit as the result of Suppurating Ethmoiditis.

(See page 641.)

DISCUSSION.

DR. W. J. FREEMAN said that the reported case is especially interesting to rhinologists because of its probable origin in the ethmoid cells. Orbital abscess may occur without any direct connection with or infection from the ethmoid cells and an examination of this patient showed absolutely no sign of purulent ethmoiditis at the time he was first examined. There evidently had been in the past, trouble with the ethmoid cells, as was shown by perforation in the middle turbinals, where the cells had evidently enlarged and discharged by abnormal opening into the fossae. There had been spontaneous cure of the disease in a number of ethmoid cells, and probably also in the left superior maxillary sinus at the same time, the disease lingering in the cells near the orbit and finally rupturing into it. At the present time the lining of the superior maxillary sinus on the left is probably very thick, for the test by transmitted light shows it to be perfectly opaque. Chronic suppurative ethmoiditis is much more uncommon than many are willing to admit, and Dr. Freeman's experience is fully borne out by Bosworth's report in his new book in which he confesses seeing only five or six cases yearly. On examining most of the cases referred to him in which the attending physician suspects ethmoiditis, the pus really comes from the antrum of Highmore.

The present condition of Dr. deSchweinitz's patient is excellent, although there is some crusting from an old atrophic rhinitis; this also, however, has certainly been greatly benefited by the operation.

DR. S. D. RISLEY said that the accurate, almost normal, movements of the eye in the case reported are quite remarkable under the circumstances. The case presents many points of great interest to both the rhinologist and the ophthalmic surgeon. Unfortunately one cannot have any very extended ophthalmologic experience without having met similar cases of suppurative disease of the orbit. Many of them are certainly obscure in their origin. Dr. Risley admitted that he may have overlooked in some of the cases that have fallen under his observation a possible origin in disease of the ethmoid cells or the upper nasal passages. It is not always easy to account for the occurrence of suppuration in the orbit. There is of course no difficulty in diagnosis in cases in which injury has been inflicted upon the orbital ridge by blows or falls, followed in turn by periostitis with suppuration, and by necrosis of the orbital wall. The first point in interest, therefore, is the possibility of a more frequent origin of suppurative disease of the orbit in disease of the nasal passages than has been generally recognized. The technic of the operation in the case reported seems to have been perfect, as the results show. It is quite remarkable that the function of the superior oblique should have been so perfectly preserved. The report illustrates another point of great importance, viz.: the difficulty of differential diagnosis between suppurative disease of the orbit and malignant growths, dermoid cysts and affections of the lachrymal gland. Dr. Risley related a case of apparent extension of disease from the maxillary antrum to the orbit, and which ended in the death of the patient. The antrum was opened, revealing extensive necrosis of its walls, including the inferior orbital plate, which was removed. A large quantity of offensive pus was discharged from both the antrum and the orbit. The conjunctiva was involved, so that a collyrium instilled into the conjunctiva flowed freely through the antrum into the nose and throat. In another case occurring in a lad who presented himself with marked swelling of the left upper eyelid and periorbital tissues, there was exophthalmos, the eye being pressed also downward and inward. Orbital abscess was diagnosticated, a free incision made and a large quantity of pus evacuated. The wound and abscess-cavity healed, apparently from the bottom, and the periorbital swelling and edema of the lids disappeared. In a week the boy returned with a recurrence of pain and swelling. The wound had reopened and was discharging freely. The relapse proved to be due to the presence of a sequestrum of necrosed bone occupying the outer aspect of the superior orbital ridge, which was removed through the fistulous opening without difficulty and fortunately did not involve the roof of the orbit. The exophthalmos disappeared and the motility of the globe was perfect. Necrosis of the bony walls is a frequent cause of delayed resolu-

tion in cases of orbital abscess. Another fortunate outcome in the case presented is the preservation of the function of the eye. In two instances Dr. Risley has witnessed complete blindness from atrophy of the optic nerve as a sequel to abscess of the orbit. This possibility, therefore, should be considered in giving a prognosis under similar conditions.

Dr. C. H. Thomas said that promptness in operating is the point urged between the lines of the paper all the way through. Ophthalmic surgeons will doubtless be more prompt to operate after this report than otherwise they would have been. It would be interesting to know the means by which the function of the superior oblique has been restored following its reported detachment at the pulley.

Dr. Louis J. Lautenbach read a paper upon

Philadelphia's Gas Supply in its Relation to Public Health—A Comparison of the Injurious Qualities of Coal-Gas and Water-Gas.

(See page 680.)

DISCUSSION.

Dr. J. F. Holt stated that he had expected to hear a discussion of the subject of the effects of coal-gas and water-gas on the eyes and general health of people. He had listened very attentively to the paper on the following points, viz.: to prove that carbonic acid is a poisonous substance, more poisonous than many other gases. In using illuminating gas it is not in a physiologic sense to see how quickly it will kill. There is no desire to put people in a room and turn on the gas and see how long they will live in it. Such an experiment is performed sometimes on animals in the physiologic laboratory, in order to learn which will be the more deadly, carbonic oxid or other gases. Mainly, however, these gases are used for lighting purposes, that is, they are burned. Nobody doubts that carbonic oxid is a poisonous substance, and quite a number of other gases are also injurious. One will kill quicker than another unburned; but that is not the point. The point to be brought up is are the products of combustion injurious to the eyes or the general health. A set of lights made from one of the gases and a set of lights made from another will yield carbonic acid, but it is fair to ask what is the difference between one and the other. If either coal-gas or water-gas escapes in a house, the odor at once becomes apparent, a plumber is called and the leak is repaired.

Dr. Philipp Fischelis read a paper upon

The Use of Electrolysis and the Galvano-Cautery in the Treatment of Diseases of the Nose and Throat.

(See page 645.)

DISCUSSION.

Dr. Arthur W. Watson said that those who advocate the use of electricity as a therapeutic measure are likely to consider it applicable to almost every condition. Dr. Watson has had but little experience with the bipolar methods in the removal of spurs and deviations. He has used electrolysis in the reduction of fibromata of the nose and naso-pharynx, with good results and several cases have been published recently, by other observers, in which electrolysis has been successfully employed for the same condition. The procedure is thus a good one when the growths are difficult to remove and liable to return. From a limited experience Dr. Watson is led to believe that the galvano-cautery snare does not possess any particular advantage except in hemorrhagic cases. It seems hardly possible in the majority of cases to so adjust the wire as to remove all the tissue desired. The object should be to remove as much of the tonsilar tissue as possible and particularly that portion which is concealed behind the half arches. In cases in which the tonsil is free and projecting into the pharynx the cautery might be used with advantage.

Dr. Jos. S. Gibb said that he had had very little experience with the treatment of naso-pharyngeal growths by electrolysis, but a far greater experience in the removal of hypertrophied tonsils by the galvano-cautery snare. He did not think that the latter method would supersede the old method of tonsillotomy, which he considered the best, especially in children. In adults, however, particularly when hemorrhage is to be feared, the galvano-cautery certainly has a place and is to be preferred. There is also a class of cases in children with tonsils that are not only hypertrophied, but attached to the pillars. It is recommended in doing tonsillotomy to always separate the pillars from the face of tonsils, but this is not always easily done. The cautery will cut through the tonsil and the pillar itself without a particle of hemorrhage. The danger of tonsillotomy when the tonsils are attached to the pillar is thus avoided. When the parents or the child objects strenuously to the knife, by thoroughly cocainizing the part, the wire could be thrown around it and the tonsil removed with very little pain. In cases of this kind the galvano-cautery wire could be used with great advantage.

Dr. G. Betton Massey said that he had very little experience with the electro-therapeutics of the throat and none at all with bipolar puncture as contrasted with monopolar puncture. He felt sure that bipolar puncture would be less painful than monopolar puncture, at least he had been told so by Dr. J. Solis-Cohen, who has used both forms of puncture. Dr. Massey has had considerable experience, however, with that form of eletrolysis which might be called cataphoresis, a single positive pole being placed in contact with mucous membrane.

This pole consists of a very small wire electrode about six inches long with a curved point, which should be of either gold or platinum. The one Dr. Massey uses is tipped with a tiny shepherd's crook of platinum about half an inch long and an eighth of an inch wide across crook; a little pledget of cotton is wound upon this and it is dipped in 5 per cent. solution of cocain and placed on a sensitive spot in some portion of the mucous membrane of the nose and then from 2 to 7 milliamperes turned on. The effect of the cocain is much intensified through its cataphoric transference by the current, so that one can easily carry the current higher than 7 milliamperes shortly after it is turned on say about 10 minutes afterward. This procedure enables one to apply the cataphoric effect of the cocaine and of free oxygen and chlorin formed at that spot to any portion of the mucous membrane of the nose, and the immediate effect is rather agreeable. Of course the cocain helps to open the nasal passage, but the application dries up secretions after the immediate excitation and if applied daily, will, do a great deal toward curing the raw condition of the mucous membrane present in the nose in these cases. Such an application is designed altogether from the point of view that these are cases of catarrhal enlargement of the mucous membrane and not isolated hypertrophies or morbid growths, and on the whole the treatment should be preferable to that by various applications of medicated liquids. Dr. Massey's statements were based upon personal experience in his own case. He had some three other cases in which this method was tried and proved highly successful.

DR. L. J. LAUTENBACH said that at the meeting of the Otological Section of the American Medical Association recently held at Philadelphia the consensus of opinion with regard to operations upon the tonsils was that there is but one result to be obtained by any method, whether the tonsillotome, the snare, excision, the cautery, and that is to get down to the circumscribed area and remove the part. No operation will succeed that does not remove all of the tonsillar tissue. It may not be feasible to do this at once, but treatment should be persisted in until this end has been attained. It is especially in small children that this expedient of absolute removal of the tonsil should be adopted. The ordinary moue of procedure is first to cut out all of the tonsil that can be removed, then to use the cautery if necessary and to tear or gouge out with the finger all that was not removed by the other measures employed.

DR. FISCHELIS said that as a rule, when patients come with the intention of having their tonsils removed, they expect to get rid of them at once and no reputable laryngologist will tell his patient "after I took out your tonsils you will have to continue to come to me for a good while before you can be considered to be free of them." With the snare a great deal more can be removed than with the tonsillotome. In one case in which the tonsils were thus removed six years ago there has been no return.

DR. L. JURIST asked whether complete removal of all the tonsillar tissue is necessary or expedient.

DR. FISCHELIS expressed the opinion that the tonsils should be removed entirely.

DR. C. A. VEASEY asked if Dr. Gibb had ever met with patients showing ulcerations of the pharynx or the larynx produced by inhalation of the dust of certain chemicals. It is a well-established fact that workers in bichromate of potassium for example, are prone to ulceration of the mucous surfaces of the nose and mouth, but the question arises whether they produce the same results in the pharynx and the larynx. Dr. Veasey referred to a patient presenting marked reduction of central vision, accompanied by a large central scotoma in each eye, who has had severe ulceration of his nasal septum, which finally perforated, as well as a number of smaller ulcerations in his mouth. The whole trouble is believed to be due to inhalations of dust of potassium bichromate, and the anilines. The man is employed as a "weigher" in a dye-works, and it is his duty to weigh the different ingredients from which the dyes are mixed. For seven or eight years he has remained from a half hour to an hour and a half daily in a very close room, weighing these chemicals, and, according to his statement, the room is always filled with exceedingly fine particles of dust that he has been obliged to inhale. The chemicals chiefly used are potassium bichromate and anilines, and the latter do not produce ulceration. A respirator was recommended for use while closeted in the weighing-room and not only his eye-trouble but his nasal and buccal trouble began to improve at once. Whether it was the potassium bichromate or the anilines that gave rise to the retro-bulbar neuritis it is not possible to state positively.

DR. L. JURIST said that the key-note of therapeutics was struck in the statement that carcinoma of the larynx can at a certain stage be readily recognized; that at a very early stage the diagnosis sometimes impossible is also true. As between tuberculosis and syphilis a great deal has been said and a good deal of doubt still exists. If a gumma be present—a tumor-like mass—which promptly yields to potassium iodid, the diagnosis is tertiary syphilis. If it does not yield the mass is removed and microscopically it may be tuberculous or carcinomatous. Dr. Jurist referred to a case in which upon microscopic examination of a mass removed from the larynx supposed to be a fibroma, the histologic structure of tuberculous was found. Lupus of the larynx and pharynx is so rare that a twelve or

fourteen years' experience in a pretty large clinic never demonstrated a case to him.

Perforations of the nasal septum and irritation of the nose and throat are very common among workers of all sorts and the physician should not be in a hurry to accuse his patients of syphilis because of a perforation of the septum which may have been caused by an irritant, and the whole made by the patient in endeavoring to remove the irritant.

In the diagnosis of ulceration or growth in the upper air-passages, a valuable adjunct is the use of the finger. A new growth may present the peculiar hardness of malignancy, or it may be soft. In this way the key-note to treatment will often be gained. When a finger introduced into the patient's mouth encounters a curious resistance not much need be expected of the iodids, though they should be given until any doubt is removed. When the mass is soft and shows signs of breaking down in the interior without any superficial destruction, then the more quickly from 60 to 240 grains of potassium iodid per day are administered the safer is the patient.

Dr. A. W. Watson said that Dr. J. Solis-Cohen pointed out the fact many years ago, that those employed in dye-works frequently had perforation of septum due to the chromic dyes employed. Dr. Watson has seen this many times himself, and he has been told by the workers themselves that perforation of the septum is considered an unavoidable result of the occupation. Chromic acid is a solvent of cartilage. From picking with the finger the mucous membrane becomes abraded and the chromic acid is thus permitted to come in contact with the cartilage.

Speaking of syphilitic ulcers in the pharynx, Dr. Watson said that he had seen a good many cases not presenting rapidly sloughing ulcers but the appearance of epithelioma.

Dr. Joseph S. Gibb said that it has long been known that workers in chromic acid are liable to perforations of the septum and while this drug is used quite largely in the nasal chambers, in consequence of its proneness to attack the cartilage care must be exercised in its use on the septum.

Dr. Gibb expressed his belief in the use of the iodids as a means of differential diagnosis, although reliance cannot always be placed upon them. In a case in which syphilis of the larynx was suspected, large doses of iodids were given to clear up the diagnosis. The symptoms were markedly though not entirely relieved. Later investigation points rather to a malignant than a syphilitic character. The iodids in this case reduced the edematous thickening and relieved the symptoms of stenosis, but the growth was uninfluenced.

It is true that syphilitic throat does not always give rise to unmistakable symptoms, but the exception proves the rule. There are cases in which the syphilitic process is exceedingly slow, but even here there is something in the case characteristic of syphilis. Though the ulceration progressed slowly, the tendency was toward deep rather than lateral extension. It has been admitted, however, that cases do occur in which the difficulties are so great that it becomes necessary to exsect a piece of the diseased structure to thoroughly clear up the diagnosis.

Dr. G. Betton Massey described and demonstrated

A Process by which Nascent Mercuric Salts are Cataphorically Conveyed into the Body: Its Value in the Treatment of Carcinoma.

(See page 649.)

PERISCOPE.

A new method of inducing sleep, which he has tested personally, is given by Dr. J. B. Learned (*Jour. A. M. A.*). The principle is to induce muscular fatigue by exercises carried out in bed. Lying on his back the patient first reaches for the foot and head board at the same time. He then raises his head half an inch; at the same time he breathes slowly and deeply about eight inspirations to the minute, which are counted. After about twenty inspirations, the head, which begins to feel heavy, is dropped. The right foot is then raised (the reaching for the boards and counting being continued) and similarly dropped when fatigued. The left foot goes through the same process. The muscles which are used in reaching for the head and foot boards are then relieved, and the body is elevated so that it rests on the head and heels. He then turns on the right side and reaches for the head and foot boards again, and raises first the head and then the foot as before. The same process is gone through on the other side. Thus eight positions have been assumed and a large number of muscles used. If sleep has not been induced the same cycle is gone over again.

On the west coast of Africa **phenocoll hydrochlorid** has been found successful in controlling obstinate cases of malaria when quinin has failed. The dose used is about 6 grains three times a day, from which no unpleasant symptoms have been observed.—*Am. Prac. and News.*

Dr. David Starr-Jordan computes that the child of to-day must have had at the time of Alfred the Great 8,0,672,000,000 ancestors, and at that of William the Conqueror, 8,598,094,592. This is a simple matter of arithmetical calculation. Every child has two parents, four grand-parents, and so on, the number doubling with each generation in the ascending line. But, to take the later period of William the Conqueror, we know very well that there was no such number of people on earth at that or any other time as eight and a half billions. At this point, therefore, our arithmetic appears to break down. It is only by the repetition of these ancestors many times that we can escape the force of the calculation. From these data Dr. Jordan infers that "the blood of each single person in Alfred's time who left capable descendants enduring to our day is represented in each family of strict English descent. In other words, every Englishman is descended from Alfred the Great, as very likely also from the peasant woman whose cakes Alfred is reputed to have burned." This gives us a somewhat modest idea of the value of descent from Alfred the Great or William the Conqueror.—*Louisville Courier Journal.*

Ulcers from an Extensive Burn Treated with Bovinine.—F. R. Blanchard (*New York Med. Journ.*) reports the case of a man, aged forty-three years, engineer in a stave factory, who had been injured by the explosion of the mud drum. He found the following conditions: Upper extremities severely burned about the face, neck, and upper portion of the chest, the left eye, ear, and nose being most severe; left arm, at elbow, wrist, and entire hand; right arm at wrist. Lower extremities: right buttock, over one-half of the surface; right leg on the patella, calf and ankle; left buttock, thigh and leg, over the whole posterior surface, patella, and a strip two inches wide running nearly around the ankle.

The burns were all of the second degree and healed without sloughing, except on the left calf and ankle.

The appearance of the left eye was bad, the cornea being cloudy, and my prognosis was guarded, but the eye afterward cleared up and sight is normal.

I dressed the wounds with limewater and linseed oil, equal parts, applying it on old linen cloths saturated with the mixture, and covering it with wadding obtained at a dry-goods store.

In the evening, when I changed the dressings, I found vesicles and large bullae had formed, containing clear serum, the largest to the amount of four ounces, all of which I punctured, removing all loose strips and hanging folds of epidermis.

The limewater and linseed oil dressing was used four days and then discontinued, a dressing of plain vaselin being substituted. As soon as pus began to form the wounds were thoroughly cleansed with corrosive sublimate solution (1 to 3,000), using small pledgets of absorbent cotton, then dusted with acetanilid and boric acid, equal parts, applied with a pepper duster, and the vaselin dressing applied; dressing changed every twenty-four hours.

The corrosive sublimate solution seeming to cause too much irritation, I changed to two per cent. carbolic acid solution, which worked admirably.

The eyes were treated with ice compresses, the pupils were kept fully dilated with atropin sulphate, and the following eye wash was ordered: ℞. acidi boric, sodii biborat., aa ℈j; aquæ camph., aquæ, aa ℥ii. M.

The internal treatment was with morphin to quiet pain and aconite when the pulse was too full and strong.

Twenty-five days after the accident the wounds were all healed except those of the calf and ankle of the left leg; on the calf was an ulcer eight inches long by four inches wide, and on the ankle a strip two inches wide, running nearly around the leg, both having a very unhealthy appearance, with deeply cut edges. I concluded it would be necessary to try skin grafting, but wished first to get a healthy granulating surface. It was then I conceived the idea of treating it with bovine blood.

I first cleansed the ulcers thoroughly with the carbolic solution, then saturated plain aseptic gauze with bovinine and covered the ulcers; over this I put a layer of guttapercha tissue, and covered the whole with wadding. The following morning when I removed the dressing there was no pus, and healthy pink granulations were springing up over the ulcers. I changed the dressings every twenty-four hours, and could see a rapid improvement each time, the new skin extending in more and more from the edges. Improvement was so rapid I concluded grafting would not be necessary, and continued the bovinine dressings, dusting the new granulations with calomel if they became at all exuberant.

Twelve days after beginning these dressings the ulcers were entirely healed. I then put on a dressing of plain vaselin, applied a bandage, to be worn during the day as a support to the circulation, and discharged the case.

One thing noticeable with the blood treatment was the absence of pain. Before I used it the ulcers were very painful, but after applying the blood dressing there was immediate relief, and the patient experienced no more pain.

Many leading physicians of the West are causing signs to be posted in a prominent place in their offices. They read as follows: "Time devoted to solicitors and agents will be charged for at the same rate as office consultations."

This shows the disposition of the average physician with relation to being "interviewed."—*Amer. Med. Jour.*

CHOOSTECK (*Lancet*) concludes that **chronic arthritis does not depend on micro-organisms** present either in the joints or the blood. The finding of bacteria in the joints, either after death or when death is impending, proves nothing, and the hypothesis that a specific micro-organism is the cause of arthritis is untenable. The symptoms of the disease are not constant, the only characteristic feature being a swelling of short duration affecting a joint—a condition which may be induced by toxins altogether apart from living bacteria. On the other hand, Dr. Singer, who has examined the blood, the urine, and the articular exudations in ninety-two cases, states that both staphylococci and streptococci are to be found. In three instances post-mortem examination showed the same bacteria as in the living subject; in one case the synovial membrane contained bacteria, but the exudation was free from them; in a third case there were hemorrhages with numerous streptococci in the peri-articular tissue. These facts explain why in a great many cases the articular exudations are free from bacteria. The inflammation of the synovial membrane is symptomatic, the infiltrations which contain the bacteria being frequently in the peri-articular tissue. Dr. Singer considers that the erythema multiforme which frequently accompanies arthritis is a typical pyemic affection of the skin; he is opposed to the view that salicylic preparations have a specific action, and he has seen very unfavorable results produced by intravenous injections of a mercurial salt.

H. GIDEON WELLS, after giving the details of his investigation into the **physiology and therapeutics of the thyroid gland and its congeners** (*Jour. Amer. Med. Ass'n.*) condenses the results into the following summary:

The sum total of our knowledge of the thyroid gland amounts to the following, according to the results of the latest investigations:

The thyroid gland is an organ of very variable size and shape, reaching its highest degree of development at about adult life, and decreasing with old age.

It is capable of great hypertrophy, but probably is not capable of more than a slight degree of regeneration.

Its secretion is a colloid material, which is discharged into the general blood current by way of the lymphatics.

The colloid material contains the active material of the gland, which is a complex but very stable body, called "thyroiodin," which contains about 10 per cent. of iodin.

This substance either acts as an antitoxin to the products causing auto-intoxication, or furnishes some substance necessary to tissue metabolism.

Thyroiodin is necessary to the animal economy, absence of it in adults producing myxedema; in the new-born, cretinism.

The amount of iodin in the thyroid glands of the inhabitants of any given district varies inversely with the prevalence of goiter in that district.

Thyroid glands of residents of Chicago contain fully four times as much iodin as do glands in the goitrous districts of Germany.

It is probable that glands from the Atlantic coast contain about the same amount of iodin as do the Chicago glands.

Simple parenchymatous goiters contain about the same total amount of iodin as normal glands, but the proportionate amount contain the same proportionate amount, with a very much higher total.

The amount of iodin in the glands of children, from a mere trace at birth, steadily increase until adult years. It then decreases and in old people again becomes very small.

Therapeutically the thyroid extract is a specific in cretinism and myxedema.

In simple goiter and in obesity the majority of cases are improved or cured.

It seems to have some value in tetany, scleroderma and arrested growth.

The value in psoriasis and other skin diseases, tuberculosis, insanity, rickets, etc., is doubtful.

It is contra-indicated in exophthalmic goiter, heart lesions, albuminuria and glycosuria. The dose should never be so large as to produce symptoms.

The gastro-intestinal and hepatic complications of gout are considered by STOCKTON (*Can Prac.*). He concludes as follows:

1. Gout is a definite disease to which certain individuals are predisposed, but which depends for its development upon causes largely unknown.

2. Laziness and full nitrogenous diet and the use of fermented liquors predispose to the disease.

3. So-called lithemia, as the term is popularly applied, is not gout, but is an auto-intoxication depending upon gastro-intestinal and hepatic arrangements.

4. The diet in gout should be largely free from nitrogenous substances.

5. The diet in lithemia must be ascertained by a careful study of the primary digestion, the urine, and the general health of the patient, but a nitrogenous diet is often the most satisfactory one.

The report of the commission investigating the epidemic of small-pox, which served as England's celebration of the Jenner centenary, has been published, and affords little consolation to the anti-vaccinationists. According to the official figures, the unvaccinated persons attacked stood to the vaccinated attacked in the proportion of ninety-six to four, while among the entire non-adult population, those attacked and those not attacked, there were eighty-three unvaccinated ones to seventeen vaccinated. —*Med. Rec.*

DR. COUTTS (*Treatment*) states that a large number of cases of **nocturnal incontinence of urine in children** may be cured by waking the child up at stated intervals to micturate. Restriction of liquids during the latter hours of the day will help, but in a few cases this seemed to keep up the disorder, the vesical mucous membrane being evidently intolerant of the highly concentrated urine so produced. In obstinate cases, if the urine is of high specific gravity and acidity, the child should be encouraged to drink freely towards the end of the day. Of drugs belladonna still is foremost, but it often fails, sometimes from the common method of giving several doses during the day. A much more efficient way is to give one single large dose in the evening, which can be gradually increased every four or five days, and when the incontinence ceases gradually diminished. If belladonna fails recourse must be had to other drugs, of which he places most reliance on lycopodium, the merits of which have been as yet but little recognized. He gives twenty drops of the tincture three times a day to a small child, and increases the dose gradually to a dram. Possibly more could be given. He knows of no poisonous properties attaching to the drug, but admits he may be at fault in that respect. In ordinary cases potassium bromid has proved of less service to him than to some others, but there are cases in which it may prove of the utmost benefit, those in which micturition occurs when waking is imminent or takes place. He has seen but little benefit from strychnin, but in combination with iron in cases accompanied with anemia and lassitude it has been of great service. In many instances micturition does not occur while the child lies on his side, but immediately when he turns on his back. Here a bobbin strapped over the lower spine is effectual. Circumcision is to be recommended only when there is undue tightness of the prepuce.

DR. A. M. BERGER has found in the Vatican Library (Cod. Vat., 3211) a collection of prescriptions and directions for treating various eye diseases in Michael Angelo's own handwriting, obtained probably from medical friends mainly for his own personal benefit, as it is known that the great sculptor was nearly blind before he died. Dr. Berger has published this in the original Italian with a few notes in German. It appears not to have been previously published, though it is mentioned by Pierre de Nolhac as forming an addition to Michael Angelo's manuscript poems.

Columbus, O., it is said, has 100,000 inhabitants, and 1300 physicians, one to every 77 people. Besides this, there are two large free dispensaries.

The law which at present governs the practice of medicine in France forbids the **simultaneous practice of medicine and pharmacy** even by a person who may be in possession of diplomas in both subjects. As this law expressly prohibits any mutual arrangement between a medical man and a pharmaceutic chemist, as well as any partnership between them for the carrying on of a dispensary or the sale of medicine, it is evident that this prohibition is applicable most of all to the case where the mutual understanding is inevitable—that is, to the case where the medical man and the druggist are one and the same person. The statute does not specify any penalty for infringement, but merely declares that arrangements of the kind are of no effect in a legal sense. The consequence is that the criminal courts cannot pass sentence on persons brought before them for practising both medicine and pharmacy, and the culprits have to be discharged although their guilt is manifest, so that the practice in question is to all intents and purposes authorized. This state of things might answer in places where there is no pharmaceutic chemist but would be unsatisfactory in towns, for the medical man is reduced to the position of a dealer in drugs and there is no proper supervision over the dispensing of prescription, as the responsible head of the establishment would not be in attendance; moreover, the prescriptions are no longer checked by a druggist who is able in the interests of the patients to correct any error which may have been accidentally made.—*Lancet.*

Dr. Vossius (*Deutsche Med. Wochenschrift*, No. 38, 1897) reported that a 2 per cent. solution of euphthalmin had been successfully employed for production of mydriasis. Two or three drops of the colorless solution in the eye produces a medium degree of mydriasis within twenty to thirty minutes, and disappears entirely in two or three hours. No pain nor other unpleasant effect follows the instillation, and the accommodation is unaffected. Euphthalmin is specially useful in ophthalmoscopic examinations, where the constricted pupil renders such an examination difficult in consequence of the temporary effect upon the pupils and the absence of disturbance of the accommodation.

Beneficial results from a large dose of sodium salicylate are reported by JEWETT (*Med. Rec.*). The amount taken, 320 grains, had been prepared for 32 doses and was taken in a fit of abstraction. The only unpleasant results were excessive roaring in the ears, very active catharsis, and weakness from fright, which confined him to his room for a few days, after which he felt better, stronger, and more active than he had for several years.

NEWS AND MISCELLANY.

The Ohio State Board of Health is preparing to make a **systematic investigation of the sources of water supplies** in Ohio, with the view of determining their fitness, as regards quantity and quality, for municipal and domestic purposes. One of the first things to be done will be the preparation of a drainage map. The areas of the various water sheds, the inhabitants per square mile upon each, the cities obtaining water supplies from streams, and those contributing sewage to them, with certain other general features, will be shown upon this map. Monthly examinations, chemical and bacteriological, of samples of water collected from the different streams at points where water supplies are taken or sewage discharged into them, will be a feature of the work. Inspections will also be made to determine as nearly as possible the amount and character of polluting material received by various streams. A valuable part of the work will be stream gaugings. Of very great interest will be a report promised by Dr. Orton, State Geologist, on the underground water supplies of Ohio. It is hoped that Dr. Orton may also find time to prepare a map showing the location of the waterbearing strata of the state.—*Ohio San. Bull.*

The twenty-seventh annual meeting of **The American Association for the Study and Cure of Inebriety** will be held December 8, 1897, in the hall of the Washington Home, 41 Waltham street, Boston Mass.

Papers: "The Prognosis of Inebriety," by Dr. J. M. French, Milford, Mass. "The Alcoholic Question in Medicine," by Dr. John J. Couch, Somerville, Mass. "The Causation and Heredity in Inebriety," by Surgeon-Major Pool, London, England. "Treatment of Inebriety by Baths," by Dr. C. H. Shepard, Brooklyn, N. Y. "Treatment of Delirium Tremens, with a Case," by Dr. V. A. Ellsworth, Boston, Mass. "The Insanity of Inebriety," by Dr. T. D. Crothers, Hartford, Conn. "The Use of Alcohol in Practical Medicines," by Dr. I. N. Quimby, Jersey City, New Jersey. "Some New Methods in the Treatment of Alcohol and Opium Addiction," by Dr. J. H. Kellogg, Battle Creek, Mich.

Papers have been received from Drs. Motet and Lagrand, of Paris, France; also from Drs. Clark, Ridge, and Stearns. Papers are promised from Drs. Mattison, Seavsey, Hall, and others.

The annual address will be delivered by Dr. Ira Van Geason, Director of the New York State Pathological Institute:—"On some recent researches on the action of Alcohol on Brain Cells." You are very cordially invited to attend. T. D. Crothers, M. D., Secretary.

During the recent meeting of the American Public Health Association a unique and most enjoyable contribution to the special committee's arrangements for entertainment, were the outings extended through the courtesy of the H. K. Mulford Company. Tally-hos, fully equipped, made frequent trips through the most interesting sections of the city and considerable portions of Fairmount Park, en route to and from the host's biological laboratory, where every step in the preparation of anti-toxin and allied products was exhibited to the guests.

A series of **laboratory demonstrations free to physicians** will be given at the Polyclinic Hospital as follows :

Monday, Nov. 15th, 22d, 29th, Dec. 6th, at 11 A. M. and 4.30 P. M., X Ray Diagnosis, by Dr. Haines; Operative Surgery, by Prof. M. J. Stern.

Tuesday, Nov. 16th; 23d, 30th, Dec. 7th, 2 P. M. and 4 P. M., Gastric Examinations, by Prof. D. D. Stewart; Operations on the Eye, by Prof. G. E. deSchweinitz.

Wednesday, Nov. 17th, 24th, Dec. 1st, 8th, 12.30 P. M., Clinical Microscopy, by Adjunct Prof. A. O. J. Kelly.

Thursday, Nov. 18th, 25th, Dec. 2d, 9th, 10 A. M., Operative Gynecology, Adjunct Prof. F. W. Talley.

Friday, Nov. 19th, 26th, Dec. 3d, 10th, 4 P. M., Surgical Anatomy, by Prof. A Hewson.

The only **new hypnotic introduced during the last ten years, is pellotine**; its value is not yet established although several favorable clinical reports have been published; nothing valuable therapeutically has been heretofore gained from the cactus plant. Trional, introduced recently, is only an improved sulfonal (dating back more than ten years), and the two are equally dangerous. Chloralamid is the next recent introduction, and is the safest of all; but even chloralamid can induce a habit, although few cases are on record; it is least poisonous, and patients have recovered without damage from enormous overdoses. All the new hypnotics can be used successfully in some cases, properly administered. Chloral and chloralamid appear to yield the best and most reliable results, while least exposing the patient to dangerous symptoms. The ideal hypnotic is still to be attained. —*Amer. Therap.*

Expressed in time units, the distance between Cape May, N. J , and Philadelphia, is 100 Minutes—measured by the "Century Flyer" over the route of the South Jersey Railroad.

This, and like marked reductions in time to other points, in connection with the superior modern equipment, splendid service, and capable management maintained by the railroad, easily accounts for recent great increase of travel to the health resorts along the southern coast of New Jersey.